Oil, Paint and Drug Reporter

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December 24, 1956

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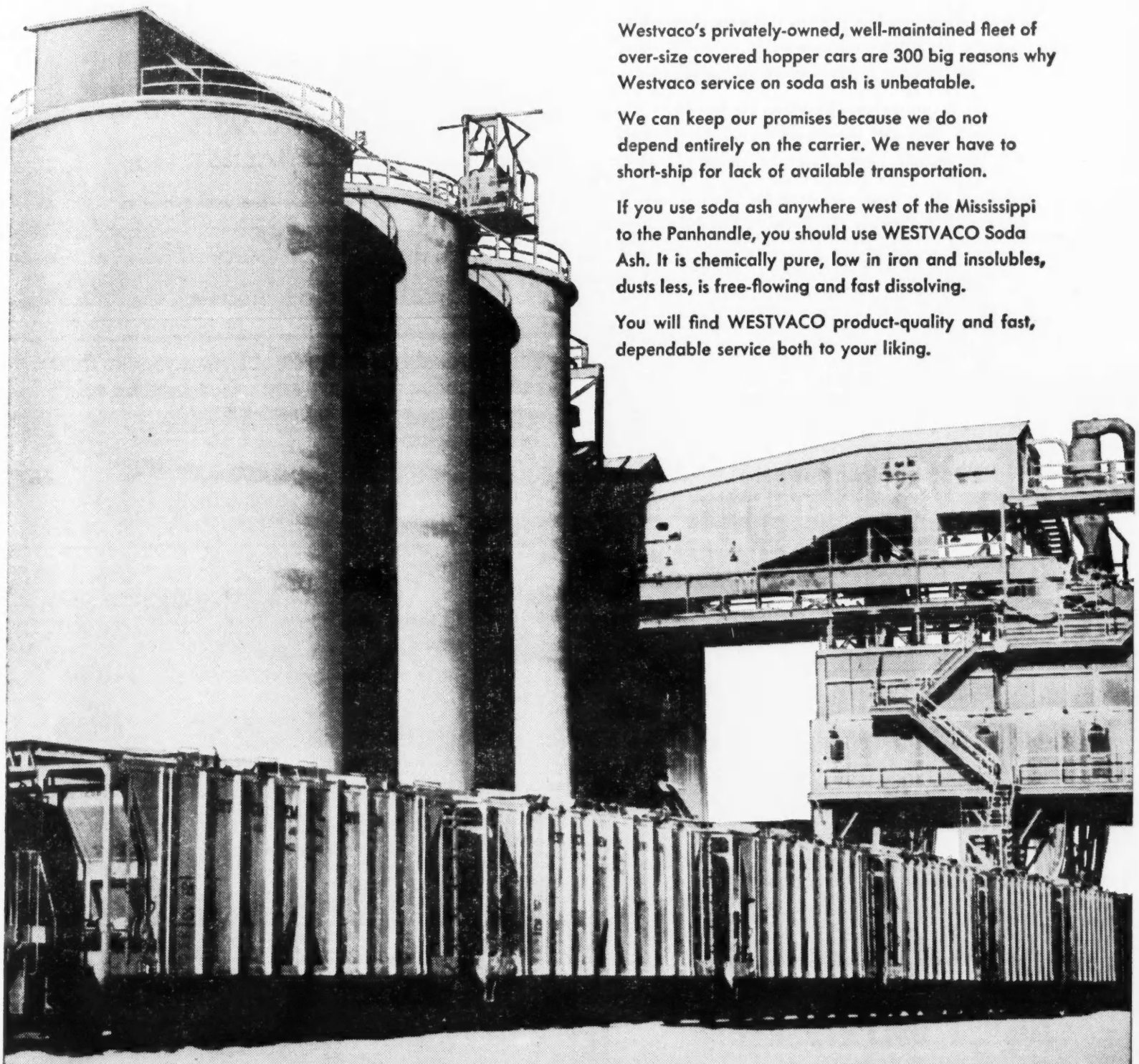

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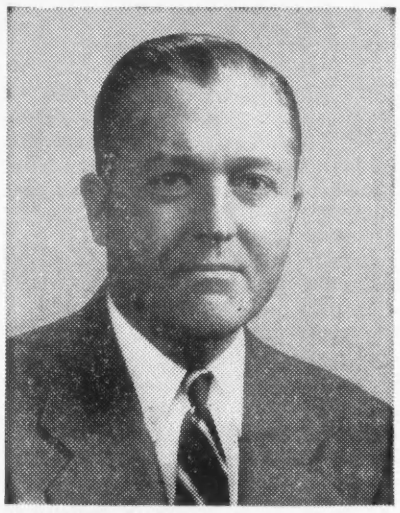
Oil, Paint and Drug Reporter

Vol. 170 No. 26 30 Church St., New York 7, N. Y. December 24, 1956



MARKETING DIRECTOR: George R. Lawson, named director of marketing of its new industrial division by Pennsylvania Salt Manufacturing Company, Philadelphia.

Hercules, ICI Form Methacrylate Firm

Hercules Powder Company, Wilmington, Del., and Imperial Chemical Industries, Ltd., of England, have formed a new company to build and operate an $11 million plant for the manufacture of methyl methacrylate. Richard T. Yates, of Hercules, has been named president of the company, which will be called Hawthorn Chemical Corporation, and will be owned on a fifty-fifty basis by Hercules and Imperial Chemical.

A new plant, with an annual capacity of 35 million pounds, will be built at Louisiana, Mo., adjoining Missouri Ammonia Works, which is owned and operated by Hercules. The administrative offices of the company will be located in the Delaware Trust Building in Wilmington.

For the past four months Mr. Yates has been on special assignment from Hercules in connection with the formation of Hawthorn. Prior to that assignment, he was manager of the agricultural chemicals division in the naval stores department of Hercules.

A major factor in selecting the plant site was the ready availability of key raw materials. Ammonia and methanol will be supplied by the Missouri Ammonia Works and natural gas is available from the adjacent pipeline from Texas gas fields.

The new company will make and sell both monomer and polymer in various

—Continued on page 58

Dow Buys Louisiana Firm Holding Extensive Oil Land

The purchase of all stock of Schwing Lumber & Shingle Company, Plaquemine, La., has been announced by Dow Chemical Company, Midland, Mich.

Dr. A. P. Beutel, vice-president in charge of Dow's Texas and Louisiana operations, said that the assets of the purchased company are approximately 60,000 acres of land mainly in Iberville, St. Martin, Assumption and Iberia parishes.

"Dow's privately-negotiated purchase was made as a long range investment for oil and gas exploration in connection with our Louisiana operations," Dr. Beutel added. The Schwing Company will come under the direction of Dow's Brazos Oil & Gas Company Division, which has headquarters in Houston, Tex.

Dow is constructing a Louisiana division just north of Plaquemine to produce organic and inorganic chemicals. The investment in this division, whose project manager is J. R. Stein, has previously been announced as being in excess of $50 million.

Chemical Industry Faces Rise In Rail Transportation Charges Around the First of the Year

The chemical industry faces the prospect of higher rail transportation charges around the turn of the year. Interstate Commerce Commission last week authorized a 7 percent boost in freight rates on eastern railroads and a 5 percent hike on western roads, upon five days notice to shippers. Meanwhile, an ICC examiner recommended to the full commission that a group of eastern railroads be granted a 15 percent increase in interstate first-class passenger fares, and a 5 percent rise in coach travel fares.

Railway Express Hike Allowed

On top of this, Railway Express Agency during the week won approval from a three-man division of the ICC to raise its charges on less-carlot traffic by 4 percent on three-day notice. However, it agreed to hold up the increase until December 27 to allow the full commission to review protests lodged against the boost by shippers and the Department of Agriculture.

The rise in freight rates of 7 percent in the east and 5 percent in the west, includes certain exceptions which will reduce the net amount of increase to about 6 percent in the east and 4 percent in the west. The increase is an emergency rise and was slated to go into effect sometime over the week-end pending consideration by the ICC of another request of the rail carriers for a further 15 percent increase.

Exceptions to the percentage increase "holddowns" limit the effect of these rate increase on the following commodities:

On fresh fruits, vegetables and melons, edible nuts, canned goods and millwork, the increase is limited to 7c. a hundred pounds; on lumber and sugar, to 6c. a hundred pounds; on cotton to 8c. a hundred pounds; on salt and phosphate rock, to 30c. a ton, and on potash, to 50c. a ton.

On coal and coke the increase will be 10c. a ton; on lignite the maximum boost will be limited to 5c. a ton, and on grain, grain products, livestock, fresh meats and packing-house products, lard substitutes and vegetable oil shortening, to 5 percent.

The increase in the rates on the eastern roads covers all traffic moving north of the Ohio and Potomac Rivers and east of the Mississippi River, plus traffic in the so-called Pocahontas region, West Virginia and all but the extreme western and

—Continued on page 52

Haynie Menhaden Products Organized as a Subsidiary

R. L. Haynie, jr., has announced the formation of Haynie Menhaden Products, Inc., as a subsidiary of three affiliated menhaden fishing companies—Reedville Oil & Guano Company, Reedville, Va.; New Jersey Menhaden Products, Inc., Wildwood, N. J.; and Mississippi Menhaden Products, Inc., Moss Point, Miss.

Mr. Haynie, president of the new firm and of the manufacturing companies, also announced that Edward T. Casey has been appointed vice-president of the subsidiary and will supervise sales of the "Hi-Seas" brand of stabilized menhaden wholemeal, fishmeal, solubles, and oil manufactured by the parent concerns.

ALLIED VICE-PRESIDENT: George A. Benington, president of Allied Chemical & Dye Corporation's Mutual Chemical Division, New York, who has become a vice-president of the parent company.

Acrylate Ester Plant Is Begun by Celanese

Celanese Corporation of America, New York, has started construction on a new acrylate ester plant in Pampa, Tex., according to R. W. KixMiller, vice-president and general manager of the chemical division.

With a capacity of 15 million pounds of acrylic acid esters per year, the plant is expected to begin production during the last quarter of 1957. Acrylic acid esters are raw material components for a broad range of end products, including paints, plastics, adhesives, synthetic rubber and finishes for paper, textiles and leathers.

The new facilities in Pampa represent the latest step in the Celanese chemical

—Continued on page 58

Nopco Chemical Forms Protective Coating Unit

Nopco Chemical Company, Harrison, N. J., has announced the formation of a new protective coatings division. The new unit will be responsible for the development and sale of new and established products in Nopco's line of processing chemicals.

Formerly a part of Nopco's specialties sales division, the new organization, under assistant division manager Al Silvain, is now a separate entity.

Business Outlook Continuing Good Regardless of Lull

This report was prepared by the business survey committee of the National Association of Purchasing Agents.

The overall optimism of purchasing executives, concerning the business outlook for 1957, is somewhat offset by a post-election lull in current conditions. The report on December business further substantiates last month's tempered enthusiasm for the present business situation.

However, this year-end dip has not dampened the general optimism for 1957. Some 34 percent of those who answered our special survey question about 1957 prospects say they think the first six months will be higher than the corresponding 1956 level. Only 5 percent see it lower.

42 Percent See Business Better in '57

An even greater number, 42 percent, think the full year of 1957 will surpass the year now closing. However, 15 percent are less optimistic and predict a poorer total year. The remaining reporters do not anticipate any difference in the two years.

In many instances, however, this bright picture is clouded by concern over the international situation, the tight money problem, and an expected decline in construction, particularly in the housing field.

The long-range optimistic viewpoint expressed is in conflict with the December figures, which show new orders and production decidedly down and inventories up. Not since January, 1954, have so many reported a decline in the new order situation. Production, of course, reflects this lower new order position and only 24 percent say their situation is better, as compared to 39 percent last month. Eighteen percent report lower production, as compared to 8 percent in November.

Prices continue their upward movement—but at a reduced rate, and there is much evidence of increased buyer resistance to price increases.

Lead time on new commitments continues its trend toward a hand-to-mouth basis. With a few well-recognized shortages still evident, materials are generally in ample supply.

Employment remains high and steady.

The general price movement is still upward, but the leveling trend that started in October is again reflected this month. Fewer members report price increases than in any month since last June. Furthermore, there are evidences that, in spe-

—Continued on page 62

Visking Sale to Carbide Approved by Stockholders

Approval of the purchase of the assets of Visking Corporation, Chicago, by Union Carbide & Carbon Corporation, New York, has been voted by Visking stockholders, to become effective December 31.

The terms of the agreement, previously approved by the directors of Union Carbide, call for the exchange of one share of Union Carbide stock for each two and a half shares of Visking stock currently held. A new division of Union Carbide will be set up, to be known as Visking Company.

Union Carbide's major fields of interest are alloys and metals, carbon products, industrial gases, chemicals, plastics and nuclear energy.

Visking, founded in 1925, makes food

—Continued on page 62

Dow Buys Half Interest In Mexican Caustic Firm

Dow Chemical Company, Midland, Mich., has purchased a 50 percent interest in Productos Quimicas Mexicano, S. A., a producer of caustic soda. Plans call for an immediate doubling of plant capacity, it was announced.

Productos Quimicas Mexicano, S. A., which also makes chlorinated compounds, is the largest electrolytic caustic plant in the Federal District of Mexico. The firm was founded twenty years ago. Half of the company's stock is held by citizens of Mexico.

Supreme Court to Review Ind. Standard Case Again

The Supreme Court of the United States last week agreed to review charges of the Federal Trade Commission that Standard Oil Company (Indiana), Chicago, did not act in good faith when it discriminated in prices among its various customers, allegedly to meet the lower prices of a competitor.

The action, which may open up to review the good faith clause of the Robinson-Patman act, was taken when the court accepted an appeal from the government from a decision of the United States Court of Appeals for the Seventh Circuit.

This is the second time the issue has been before the high court and grows out of an action brought against Indiana Standard by the Federal Trade Commission sixteen years ago. In 1940 the FTC accused the company of selling gasoline to Detroit, Mich., jobbers at less than the price to service stations in the area.

Standard admitted that a differential existed in the prices between these customers, but contended that the reductions were made in order to hold its customers. It claimed that it acted in accordance with a provision of the Robinson-Patman act which permits discrimination in prices in cases where the discrimination is in good faith to meet the equally low prices of competitors.

When the case reached the supreme court in 1951, the court ruled that the good faith plea was an absolute defense against a charge of illegal price discrimination, and sent the case back to the FTC to decide if the price cuts were actually in good faith.

A ruling in the negative by the commission started another chain of court actions over a year ago leading to a ruling by the Appeals Court in Chicago against the commission and in favor of Standard.

The commission contends that the prices in question were not set in good faith to meet a specific competitive offer, but were

—Continued on page 58

VOL 170 DEC 56 XUM

Superphosphate Curing Time Slashed in New TVA Process

Tennessee Valley Authority has developed a process for greatly shortening the time to produce superphosphate suitable for immediate use in mixed fertilizers. This is a goal that has been long sought by the fertilizer industry. In a pilot plant at its fertilizer works at Wilson Dam, Ala., TVA has produced the material for immediate use in mixed fertilizers in sixty minutes and has made the final mixed fertilizer in ninety minutes. The process is ready for industry use, the agency said.

In commercial practices, superphosphate is normally "cured" for a period of two to six weeks before it is used in the production of mixed fertilizers. The TVA process cuts that time to one hour by using finer phosphate rock and more acid.

With about thirty minutes for mixing and other operations, the total time for producing finished products is only an hour and a half instead of several weeks.

According to TVA, use of this development would permit the manufacturer to turn out his mixed fertilizers on a current basis and eliminate or reduce his large inventory of superphosphate in storage. Furthermore, the agency claims, a better product would result, because the method promotes higher water solubility and better granulation.

The new technic could be applied in many fertilizer plants without extensive modifications of equipment. Some plants already have part of the necessary equipment and would find conversion to the speedy and continuous process a fairly simple matter.

USI SALES MANAGER: Lawrence C. Byck, jr., appointed manager of heavy chemical sales for U. S. Industrial Chemicals Company, New York, a division of National Distillers Products Corporation.

Chemical Exports Down, Imports Up

United States exports of chemicals and related products declined nearly $10 million during October below the September value, but imports went up slightly, according to preliminary estimates of the Bureau of Census.

The bureau estimated the exports at $99.9 million which compared with exports for September valued at $108.7 million. During October, 1955, exports amounted to $97.7 million. Imports during October were valued at $21.9 million against $18.6 million in September and $20.7 million in October a year ago.

October was the first month in which exports fell below the $100 million mark since February.

The down-trend in chemical exports was contrary to the trend for exports of all merchandise which rose in October to $1,655.7 million, or 9 percent over the September total of $1,517.6 million, and 19 percent over the October, 1955, total of $1,396.3 million.

Imports of all merchandise during October reached an all-time record high of $1,120.0 million, 13 percent more than the $992.7 million reported in September, and 11 percent above the October, 1955, value of $1,010.9 million.

PHS to Tighten Rules On Biological Shipments

The Public Health Service last week moved to tighten its requirements on the shipment of dangerous biologicals. PHS would impose new restrictions on packaging of etiologic agents to prevent their damage in transit and possible contamination of public areas.

The action was taken as a result of a shipment of poliomyelitis virus being damaged and spilled while in transit at the Washington National Airport earlier this year. Because the damaged shipment went unidentified and undetected for a considerable period of time, a serious health problem was averted only by innoculating all the passengers and personnel with Salk polio vaccine.

The regulations, on which comments are invited, identifies etiologic agents as the causative agents for a number of listed diseases, and makes it unlawful for any

—*Continued on page 58*

Peppermint Crop Value Up $1 Million; Spearmint Gains

The Department of Agriculture placed a value of $12,466,000 on this year's peppermint oil crop in the annual summary of 1956 farm production made public last week. This compares with a value of $11,305,000 for the 1955 crop and $8,543,000 as the average for the six-year period, 1949-54.

The value of the spearmint crop was estimated at $2,844,000 as compared with

—*Continued on page 49*

The Week's Price Changes

Blue Hungarian Chamomile Oil Soars, Gum Arabic Increased. Copra, Crude and Refined Corn Oil, Oleo Oil Decline.

Prices Advanced

Castor beans, $5 per ton. (p. 56).
Gum arabic, 1c. per lb. (p. 43).
Locust bean, 2c. per lb. (p. 43).
Oil, bergamot, 50c. per lb. (p. 50).
Chamomile, Hungarian, blue, $35 per lb. (p. 50).
foots, corn, 95%, ½c. per lb. (p. 56).
Pimento leaf, 10c. per lb. (p. 50).
Soybean, 95%, ¾c. per lb. (p. 56).
Tankage, New York, 25c. per unit-ton (p. 36).

Prices Reduced

Copra, $2 per ton. (p. 56).
Greases, ⅜c. per lb. (p. 56).
Hoofmeal, 25c. per unit-ton (p. 36).
Oil, coconut, crude, ½c. per lb. (p. 56).
Corn, crude, ¾c. per lb. (p. 56).
refd., ¾c. per lb.
Oil, cottonseed, crude, ½c. per lb. (p. 56).
refd., ½c. per lb.
Oleo, ½c. per lb. (p. 56).
Soybean, crude, ½c. per lb. (p. 56).
refd., ½c. per lb.
Tallow, ined., ⅜c. per lb. (p. 56).
Tin, 2⅜c. per lb. (p. 30).
Salts, 1c. to 1.9c. per lb. (p. 30).

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:—

(100=1949 average)

Dec. 21, 1956	Dec. 14, 1956	Dec. 23, 1955
110.13	109.62	107.14

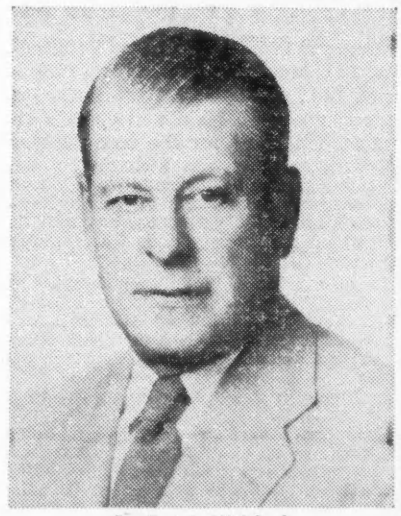
Hooker Absorbs Oldbury Men

Hooker Electrochemical Company, Niagara Falls, N. Y., has absorbed top officials of the former Oldbury Electro-Chemical Company into the Hooker organization, leading with the naming of Dr. Earl L. Whitford as a vice-president and member of the board of directors. Dr. Whitford had been president of Oldbury, prior to its becoming a division of Hooker on November 30. He will coordinate the research programs of Hooker at Niagara Falls, including that of the Oldbury Division, as well as that of the Durez Plastics Division at North Tonowanda and LeRoy, N. Y.

Reporting to Dr. Whitford will be Dr. Johannes H. Bruun, director of research and development; Dr. Walter H. Prahl, didector of research and development for the Durez Plastics Division, and Dr. James H. Brown, who has been named manager of research and development for the Oldbury Division.

Other employees named to new positions in the Oldbury Dvision at Niagara Falls are: Dr. Marion B. Geiger, general manager, reporting to Thomas E. Moffitt, executive vice-president of Hooker; Dr. Clarence A. Stiegman, technical director; Maynard L. Parker, production manager; Dr. John C. Pernert, chief research chemist; Harold L. Townend, chief engineer;

—*Continued on page 63*



Dr. Earl L. Whitford

Plant Food Group Against Fertilizer Report Change

A change proposed in the reporting of the potash and phosphate contents of fertilizers from the oxide to the elemental form was opposed last week by the executive committee of the National Plant Food Institute.

The committee acted following a pool of the membership on whether they favored, opposed or were neutral to the proposal of changing the expression of P_2O_5 and K_2O to P and K, respectively.

A resolution adopted by the committee reads as follows:

"Resolved, that the institute be authorized to publish the results of the membership poll on the oxide vs. elemental issue, and that in view of the results, that the institute looks with disfavor upon the proposed change.

"Resolved further, that the institute be

—*Continued on page 58*

FAO Sponsors Study Of Food Additives Use

A series of recommendations to guide governments in the formulation of national food laws relative to chemical additives in foods was drawn up last week by a group of experts and observers meeting in Rome, Italy, under sponsorship of the Food and Agricultural Organization.

The meeting resulted from a conference on food additives held by FAO in Geneva last year.

The group discussed "non-nutritive substances which are added intentionally to food," such as flavoring agents, colors and preservatives. The experts concluded that

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Dr. Maurice H. Bigelow

C. G. Stupp

Barrett Appoints Dr. Bigelow Stupp's Successor in Research

Barrett Division, Allied Chemical & Dye Corporation, New York, has named Dr. Maurice H. Bigelow to run its research and development department. Named technical director, Dr. Bigelow succeeds C. G. Stupp, Barrett vice-president, who will retire on December 31 after forty years with the division. Along with the appointment of a new research department chief, Barrett has also made a number of other key appointments in that unit.

Dr. Werner E. Kleinicke has been appointed director of research and will be located at the Glenolden (Pa.) Laboratory. He was formerly director of the Shadyside Applications Research Laboratory, Edgewater, N. J. Since joining Barrett in 1948, Dr. Kleinicke has been a group leader in and a supervisor of applications research.

New Director of Development

Wolcott L. Steele has been appointed director of development for Barrett. Formerly chief project engineer, he will supervise engineering development, process design, and pilot plants, with headquarters in Philadelphia. Mr. Steele started with Barrett in 1934 as a chemical engineer in the Shadyside Laboratory. In 1952 he became supervisor of engineering and process design and plant start-ups and, in 1955, chief project engineer.

Bruce T. McMillan has been appointed director of the Shadyside Laboratory. Prior to his appointment, he was supervisor of the plastics applications group at Shadyside. Mr. McMillan joined Barrett in 1948 and, in 1950, became a group leader in applications research.

James B. Maguire has been appointed to the staff of Barrett's research and development department as chemical engineering advisor to the technical director. He has been associated with Barrett for twenty-three years.

Dr. Bigelow was formerly director of research. In his new post he will head Barrett's research and development department and will be located in New York.

—Continued on page 63

EXECUTIVE VICE-PRESIDENT: Willard C. Lighter, elected executive vice-president of the Glidden Company, Cleveland, Ohio.

Borden Progresses With Expansion Plans

The chemical division of Borden Company, New York, has started up its newly-completed polyvinyl chloride plant at Leominster, Mass., has purchased other facilities in that city for the manufacture of a full line of "Resinite" plastic products and plans to build a laboratory-office building adjacent to the polyvinyl chloride resin plant.

Harold W. Comfort, president of Borden, push-buttoned the new and nearly 100 percent automated plant into operation, saying that it marks a significant step in the history of the chemical division. This is Borden's first polyvinyl chloride resin plant. It is geared to produce 12 million pounds of the resin per year.

Declaring that Borden's is entering the thermoplastics field on a broader scale than ever before, Mr. Comfort said that

—Continued on page 27

Perchloroethylene Facility Being Run for Diamond

A new bulk terminal facility specially designed for handling perchloroethylene has been put into operation for Diamond Alkali Company, Cleveland, Ohio, by McClintic-Gordon Company, McKees Rocks, Pa.

The new facility consists of a 225,000-gallon storage tank, filtering and drying equipment, a 15,000-gallon plastic-lined holding tank, drumming facilities, storage warehouse, and supporting docking and pumping facilities to accommodate barge shipments of perchloroethylene from Diamonds' Deer Park plant at Houston, Tex.

Gulf Acquisition of Warren Termed Anti-Merger Violation; FTC Hearing in February

Federal Trade Commission last week charged Gulf Oil Corporation, Pittsburgh, Pa., with violating the anti-merger law when it acquired Warren Petroleum Corporation, Tulsa, Okla., last March. The commission's charges, which were immediately denied by Gulf, will be aired at a public hearing scheduled for February 26 in Pittsburgh before an FTC examiner. Warren Petroleum was the largest independent producer of liquefied petroleum gas and natural gasoline.

According to the commission, it was the principal source of supply for independent refiners, dealers and distributors who compete with Gulf and the other major integrated oil companies. Now, the complaint alleged, the independents may be forced to look to these competitors for their supplies.

Gulf Second Biggest in Sales

The complaint listed Gulf as one of the major integrated enterprises in the oil industry and said that in 1955, in terms of sales, it was the second largest company in the industry in the United States. FTC said that the merger threatens to lessen competition substantially because:

- Warren has been eliminated as an independent competitive factor and as the principal supplier of "non-captive" natural gas liquids.
- Gulf may divert Warren's supplies of these products to its own uses or otherwise manipulate them for its own purposes.
- The combination of the second largest domestic petroleum company (in terms of sales) with the largest independent marketer of natural gas liquids may give the resulting combination a decisive competitive advantage over less diversified competitors.
- There may be a foreclosure of new entries into the markets.

FTC said that the acquisition of Warren raises Gulf from approximately twelfth to fourth place in the production of natural gasoline. Its reserves of natural gas liquids have increased approximately 38 percent to almost 317 million barrels, and it is the second largest possessor of such reserves in the United States. Gulf also has risen from seventh to first place

—Continued on page 52

Dow Chemical Is Planning Additional Research Unit

Dow Chemical Company, Midland, Mich., is planning new research facilities in California. It has asked the Contra Costa County Planning Commission to rezone thirty acres of land in California's Ygnacio Valley so that it may buy the property as a site for a future laboratory.

Present preliminary architectural plans call for a one-story research laboratory designed to discover new products and processes. The facilities will ultimately provide space for several hundred research scientists and technicians.

The land involved lies on the west side of Oak Grove boulevard immediately south of the Contra Costa Canal.

Phenol Plant Capacity Doubling Nearly Complete

Barrett Division of Allied Chemical & Dye Corporation, New York, has announced that a substantial expansion of synthetic phenol capacity at its Philadelphia, Pa., plant, will be completed shortly.

The plant, which was placed in operation about three years ago, will have nearly twice the capacity of the original installation. Improvements now under way are scheduled for completion in early 1957.

Kenneth C. Loughlin

Celanese Chooses Four Vice-Presidents

Celanese Corporation of America, New York, has elected Kenneth C. Loughlin executive vice-president and has appointed Ronald O. Gilbert, John W. Brooks and Alexander R. Cochran to vice-presidencies. The position of executive vice-president is a new one and in that capacity Mr. Loughlin will have broad corporate administrative responsibilities.

Mr. Loughlin has spent most of his career with Celanese, which he joined in 1929. During his first three years with the company, he did laboratory and sales work in Charlotte, N. C.

As southern district manager between 1932 and 1951, Mr. Loughlin covered a twelve-state area, getting increased acceptance among mills for acetate and familiarizing them how to process the then relatively new synthetic fiber.

In 1951, Mr. Loughlin was appointed vice-president in charge of the company's southern textile sales and in the following

—Continued on page 49

Ethylene Recovery Plant To Be Built by Humble Oil

Humble Oil & Refining Company, Houston, Tex., plans to build a $5 million ethylene recovery plant at its Baytown, Tex., refinery. Construction will start in early 1957, and will be completed in the middle of 1958.

The plant will have an initial ethylene recovery capacity of 80 million pounds per year. Production will be sold in the Gulf Coast area and transported by pipeline.

Michigan Chemical Sells Stock to Aid Expansion

Michigan Chemical Corporation, St. Louis, Mich., has announced consummation of an agreement entered into on September 7, between that company and a group headed by Pennroad Corporation, Webster Investors, Inc., and American Manufacturing Company.

By this action 150,000 shares of the chemical company's authorized, but unissued, common stock have been purchased by the above companies. It is contemplated that the approximate $2.5 million thereby made available will be employed by Michigan Chemical in plant expansion programs.

Southwest Chemical Growth Booms Since War

Chemical growth in the southwest has taken place at a phenomenal rate. During the period 1947-54, value added by chemicals production nearly tripled. The Federal Reserve Bank of Dallas, Tex., reports that, together, related chemicals and petroleum products industries accounted for nearly one-third the value added and nearly two-thirds of the expenditures for new plants and equipment in 1954 alone.

The manufacture of both chemicals and petroleum products has flourished in the Gulf Coast area, largely because of the plentiful supply of oil, sulfur and other raw materials in the immediate vicinity.

Also to be considered are existence of trunk pipelines from other oil-producing areas, cheap water transportation, availability of low-cost natural gas as a raw material and for fuel, the mild climate, a supply of skilled labor provided by the long-established petroleum industry, and expanding local markets.

The existence of oil refineries in the area is a special attraction to the chemical industry, since refinery gases are an important raw material for many chemical products.

Industrial organic chemicals constitute the largest segment of the southwestern chemical industry, with the production of chemicals used in plastics and synthetic rubber showing significant growth in recent years.

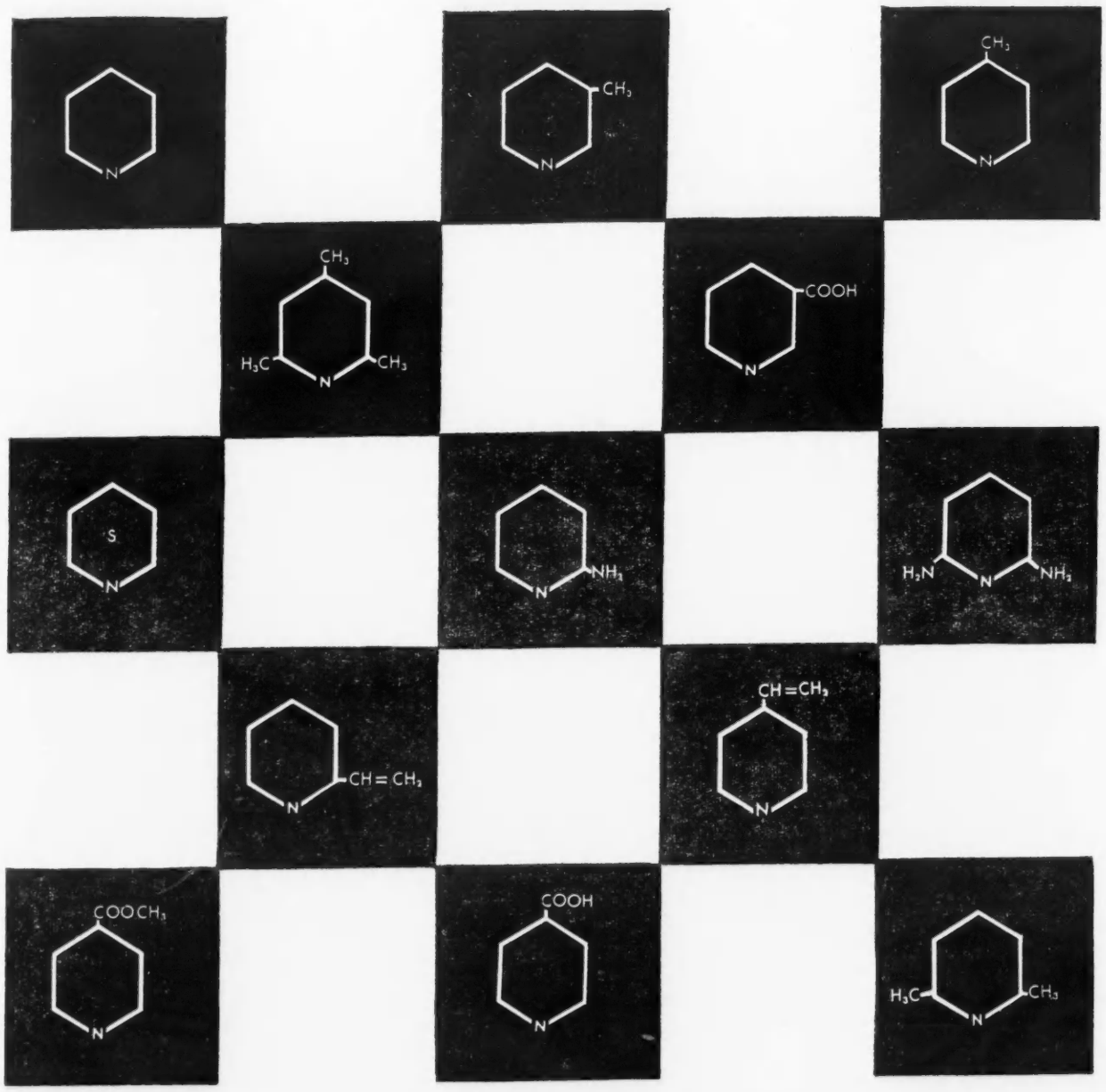
Other industrial chemicals, including sulfuric compounds, vegetable and animal oils, paints, and soaps and related products are also of importance.

Some of the major chemicals marketed in the southwest are ammonia, butadiene, ethylene, polyethylene, styrene, and synthetic rubber.

Manufacturing value added by the chemicals and products industry led all other industries in the southwest in 1954, with a total of $1,070,424. Value added in 1947, $368,875, shows the extent to

—Continued on page 52

PYRIDINE Compounds?



Reilly makes many more Pyridine compounds. For a complete list write for your copy of the Reilly Chemical Index...1957 Edition.

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Association Meetings

Pharmacy Section of the American Association for the Advancement of Science, symposium on cosmetics, Statler hotel, New York, December 27.

American Drug Manufacturers Association, annual meeting, El Mirador hotel, Palm Springs, Calif., April 22-25.

American Pharmaceutical Manufacturers' Association, midyear and eastern section meeting, central section meeting, Edgewater Beach hotel, Chicago, February 11-13; western section meeting, Ambassador hotel, Los Angeles, February 18-19.

Association of American Soap and Glycerine Producers, annual convention, Waldorf-Astoria hotel, New York, January 23-25.

Association of Consulting Chemists & Chemical Engineers, banquet and symposium, Belmont Plaza hotel, New York, April 24; annual meeting, Belmont Plaza hotel, New York, October 22.

Chemical Buyers' Group, National Assosociation of Purchasing Agents, midwinter meeting, western division, Congress hotel, Chicago, January 24; eastern meeting, Commodore hotel, New York, January 29.

Chemical Specialties Manufacturers Association, midyear meeting, Drake hotel, Chicago, May 20-22.

Chemical Market Research Association, Sheraton hotel, Philadelphia, March 12-13.

Commercial Chemical Development Association, plastics meeting, Statler hotel, New York, March 27-28; resort meeting, French Lick, Ind., May 13-14.

Council for Agricultural and Chemurgic Research, annual chemurgic conference, Congress hotel, Chicago, March 26-28.

Drug, Chemical and Allied Trades section of New York Board of Trade, annual dinner, Waldorf-Astoria hotel, New York, March 7; annual meeting, Galen Hall, Wernersville, Pa., September 19-21.

Essential Oil Association, annual meeting and dinner, Savoy Plaza hotel, New York, January 4.

Federal Wholesale Druggists' Association, midyear meeting, Statler hotel, New York, March 7-9.

Federation of Paint and Varnish Production Clubs, annual convention, Bellevue-Stratford hotel, Philadelphia, October 30-November 2.

National Agricultural Chemicals Association, spring meeting, Fairmont hotel, San Francisco, March 6-8.

National Industrial Conference Board, fifth conference on atomic energy, Benjamin Franklin hotel, Convention Hall, Philadelphia, March 14-15.

National Paint, Varnish and Lacquer Association, annual convention, Sheraton-Park and Shoreham hotels, Washington, D. C., November 4-6.

National Pest Control Association, eastern pest control operators conference, University of Massachusetts, Amherst, Mass., January 23-25; Purdue pest control operators conference, Purdue University, West Lafayette, Ind., January 28-February 1; southern pest control operators conference, Louisiana State University, Baton Rouge, La., January 28-30.

National Plant Food Council, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., June 9-13.

Nuclear Congress, Convention Hall, Philadelphia, March 11-15.

Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy, Penn-Sheraton hotel, Pittsburgh, Pa., March 4-8.

Society of Plastics Engineers, annual technical conference, Sheraton-Jefferson hotel, St. Louis, Mo., January 16-18.

Society of Plastics Industry, annual conference and Pacific Coast plastics exposition, Shrine Exposition Hall, Los Angeles, March 18-21.

Archer-Daniels Has Process To Bring Chemical Irradiation Into Realm of Practical Use

Archer-Daniels-Midland Company, Minneapolis, Minn., long a major factor in vegetable drying oils, has joined forces with Applied Radiation Corporation, Walnut Creek, Calif., and has come up with a process that gives promise of bringing chemical irradiation within the realm of practical economic use. Through ARCO, a subsidiary in which it has a major interest, ADM has gotten into the business of manufacturing linear electron accelerators. These ARCO-developed accelerators are likely to have great impact on the chemical industry because of what they can do to chemicals.

Among other things, they open up new horizons in the sterilization of pre-packaged pharmaceuticals and foodstuffs. They offer a new approach in organic synthesis by making possible new polymeric molecular configurations.

First Time Process Made Practical

There is nothing new in the irradiation of substances with high energy waves or atomic particles. But this is the first time that this atomic energy process has been harnessed to practical uses.

Research in the use of high energy with gamma rays, x-rays, and high energy electron radiation has established the technical accuracy and feasibility of using this atomic energy process for such practical purposes as the safe cold sterilization of pre-packaged foodstuffs (meats, drug products, surgical dressings and the like). This process is particularly valuable for the sterilization of heat sensitive products which might be adversely affected in quality, appearance or taste by heat sterilization methods.

Future potential usage of high energy radiation is not confined to sterilization operations in the food and drug industries, or the treatment of cancer and malignant tumors, but has been opened toward a wide vista of organic chemical and polymeric syntheses and treatments.

Such organic chemical irradiation operations accomplish results in much shorter time than could be accomplished by heat or other energy transfer operations, and in many cases permit the formation of end-products that cannot be effected in any other way. Thus, high energy radiation can contribute to established organic synthesis and also enable entirely new syntheses through molecular configuration

—Continued on page 59

PRESIDENTIAL AID: Dr. Sherman K. Reed, named assistant to the president of Food Machinery & Chemical Corporation's new organic chemicals division, New York, with responsibilities in research.

Pesticide Carryover Reaches Higher Point Than a Year Ago

Carryover stocks of most pesticides on September 30, 1956, were larger than on the same date a year ago, the Department of Agriculture reported last week. The department said that manufacturers, in establishing production schedules in 1956, kept output well above levels needed to meet increased demand and replenish distributive channels. Pesticide carryovers in the hands of basic chemical producers increased more than formulators' inventories.

For example, producers' stocks of the chlorinated hydrocarbon group (aldrin, chlordane, dieldrin, endrin, heptachlor and toxaphene) were up more than 90 percent, whereas formulators' stocks increased only 20 percent.

Producers' stocks of DDT, technical and mixed, were 78 percent larger as contrasted with an increase of 46 percent for stocks in hand of firms formulating but not manufacturing the product. Producers' stocks of undiluted benzene hexachloride grades showed a 100 percent increase.

Increased inventories of calcium arsenate reflect the revival of interest in this material to control the boll weevil in areas where this insect has acquired resistance to newer organic insecticides. Formulators'

—Continued on page 62

TO HEAD ACS IN 1958: Dr. Clifford F. Rassweiler, vice-president for research and development of the Johns-Manville Corporation, New York, who has been chosen president-elect of the American Chemical Society. He will head the society in 1958.

Soap Industry Group Will Meet in January

The "pay-off" value of pioneering, from colonial soapmaking down to today's cleanliness products, will be stressed at the 1957 soap industry convention. The conclave is scheduled for the Waldorf-Astoria hotel, January 23 to 25, and is sponsored by the Association of American Soap and Glycerine Producers.

An exhibit of the industry's early days will show how innovations in soap production, packaging, and marketing gave the housewife increasing convenience and respect for cleanliness. Advances in detergents for home and industry, and in the

—Continued on page 58

Army Chemical Corps Gets Safety Award From MCA

The Army Chemical Corps last week was awarded a special Certificate of Commendation by the Manufacturing Chemists Association for its safety record in handling dangerous chemical products.

The certificate was accepted on behalf of the corps by Maj. Gen. William M. Creasy, USA, Chief Chemical Officer. John E. Hull, president of MCA, in awarding the certificate noted that both the military and civilian personnel accident frequency rate of the chemical corps compared favorably with private industry for the year 1955.

Socony Plans Construction Of Units at 4 Refineries

Plans for construction of new processing units at four refineries have been announced by Socony Mobil Oil Company, New York.

A contract has been awarded to M. W. Kellogg Company, New York, for erection of a sulfuric acid alkylation unit at Socony's Buffalo, N. Y. refinery. The unit is designed to produce 2,435 barrels per stream day of alkylate—a high-octane gasoline component.

Another sulfuric acid alkylation unit, with a capacity of 3,500 barrels per stream day, will be built at the company's refinery at Trenton, Mich. A contract for construction of this unit has been awarded to the Flour Corporation, Los Angeles.

A catalytic reforming unit for upgrading motor gasoline is to be built at the Augusta, Kans., refinery. This unit, designed by Socony Mobile engineers, will have a throughout capacity of 9,000 barrels per stream day and will employ an

—Continued on page 48

Mann Offers New Material

Mann Research Laboratories, Inc., New York, has made available o-nitrophenyl-b-D-galactoside of high purity forming 99.5 percent of o-nitrophenol on enzymatic hydrolysis.

Cosmetic Chemists Hear Varied Papers

Seven scientific papers, covering such topics as new technics, tools and procedures, highlighted the recent annual technical meeting of the Society of Cosmetic Chemists in New York.

Abstracts of the papers follow:

New Developments in Glass Containers

*William R. Prindle**

The last few years have seen a considerable increase in both fundamental and applied research in the glass field. An appreciable part of this work has been on glass strength. New experimental technics are being developed and new facts concerning the strength of glass have been collected. Some of this information can now be applied to the manufacture and handling of glass containers.

Imperfections and stress concentrations on the surface of glass have been investigated by means of both electron and optical microscopy and metal evaporation technics. The role of these surface flaws

—Continued on page 46

Phosphate Pebble Shipped To Wilson Dam Via Water

Tennessee Valley Authority last week reported that the first all-water shipments of phosphate pebble from Florida to its chemical plant have been received at the Wilson Dam, Ala., fertilizer works.

Two bargeloads of the Florida phosphate—about 2,500 tons—were loaded on ocean-going barges at Tampa and transferred to river barges at Port Sulphur, near New Orleans, La., for shipment up the Mississippi, Ohio and Tennessee Rivers.

Olive Oil Production From Mediterranean Seen Up

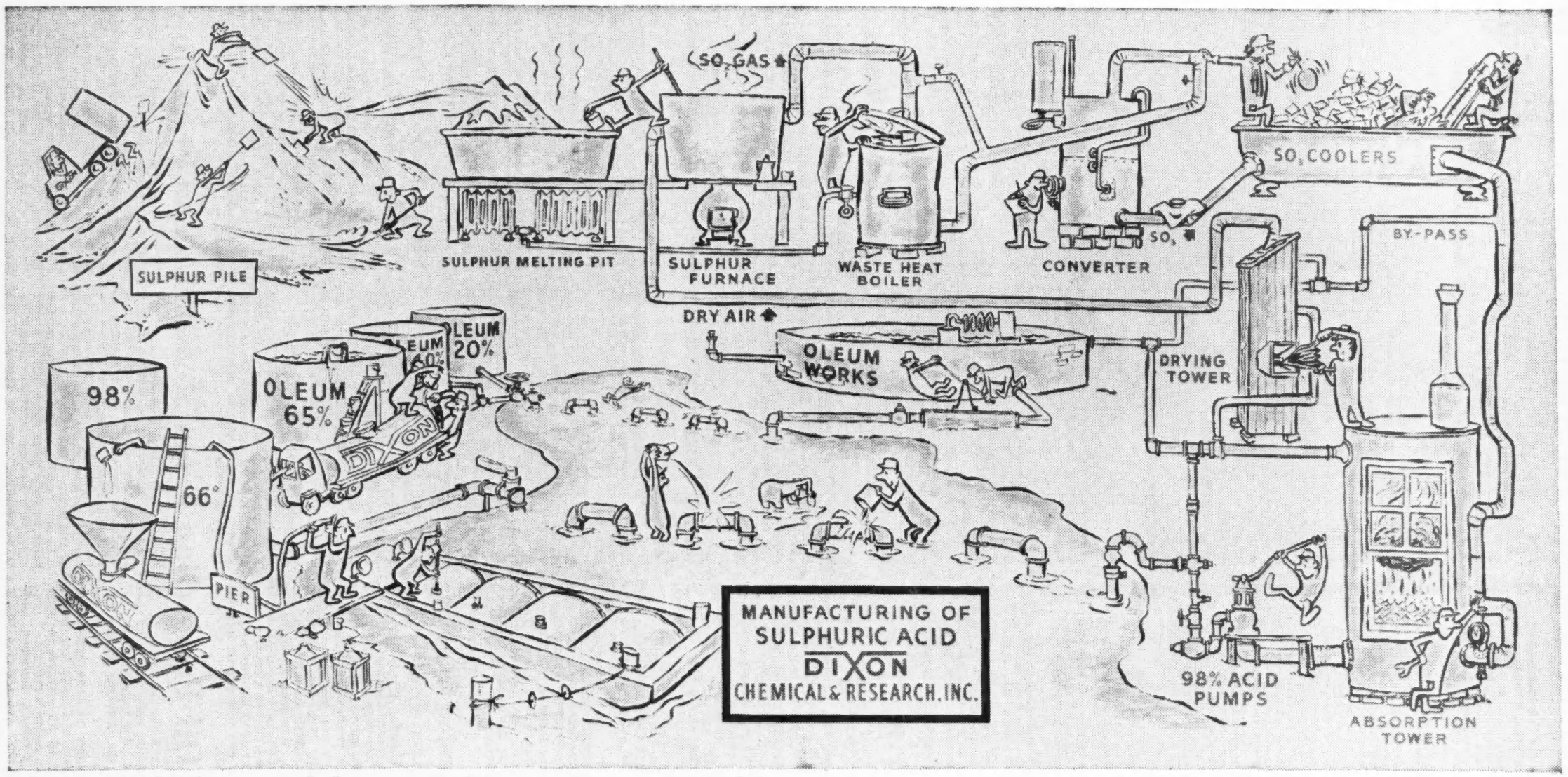
Mediterranean basin production of oil from the 1956 olive crop, now being harvested, is estimated at 1,074,000 short tons, according to the Foreign Agricultural Service.

This preliminary estimate reflects an expected increase of 325,000 tons of oil from the estimated production of the 1955 olive crop. The estimate reflects all production from crushing, including noncommercial output, but excludes sulfur or foots oil extracted from olive residue by solvents.

Despite earlier fears that the widespread freeze of last winter would seriously cut back olive production in southern Europe, large increases in Spain, Greece and Portugal will more than offset declines in Italy and France. Also, with Turkey expecting a near-record crop, production in the Middle East likely will be double that of last year.

In North Africa, output may approach a volume nearly three times that of a year ago, with Tunisia reportedly about to crush its largest crop on record. Olive growers in France and Yugoslavia, where production of oil from this year's crop is expected to be only a fraction of their normally small output, probably suffered the greatest losses from the freeze of last winter.

Prices which had reached postwar peaks in most producing countries in 1955-56 began to decline in late summer of 1956 as prospects for better crops began to firm. While there is still some uncertainty about official export pricing policies in Spain and Tunisia, there is little doubt that new-crop prices will be considerably lower than those which have prevailed since early in 1956. In Italy, both domestic and export quotations have been weakening since March, 1956.



the new look in sulphuric acid . . . now revealed.*

Reproductions of this flow chart suitable for framing are available on request.

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*pat. pending

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CHEMICALS AND RELATED MATERIALS

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Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, December 21 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

A

Acacia (see Gum arabic).

Acenaphthene below 92.5 C., m.p., dms., works lb. .40 - —

above 92.5 C., m.p., bbls., dms., lb. .41 - .50

Acetaldehyde, 99%, dms., c.l., works, lb. .12 - —

l.c.l., works lb. .13½ - —

tanks, works lb. .10 - —

Acetaldol (see Aldol).

Acetanilide tech. flaked, bbls., bgs., c.l., frt. alld lb. .30½ - —

ton lots lb. .31½ - —

smaller lots lb. .34½ - —

USP, bbls., 2,000-lb. lots lb. .79 - —

smaller lots lb. .80 - .81

Acetic anhydride, aluminum ret., dms., c.l., dlvd. E lb. .15½ - —

l.c.l., dlvd E lb. .17 - —

tanks, dlvd E lb. .14 - —

Acetoacetanilide, fib. dms., c.l., dlvd lb. .80 - —

l.c.l., dlvd lb. .81 - —

Acetoacet-o-chloroanilide, fib dms., c.l., dlvd 1.35 - —

l.c.l., dlvd lb. 1.36 - —

Acetoacet-o-toluidide, fib. dms., c.l., dlvd. lb. .62 - —

l.c.l., dlvd lb. .63 - —

Acetone, CP dms., c.l., dlvd. lb. .10½ - —

l.c.l., dlvd lb. .11½ - —

tanks, dlvd lb. .08 - —

Methyl (see M).

Acetonitrile, dms., c.l., works lb. .43 - —

l.c.l., works lb. .47 - —

Acetophenetidin, USP, bbls., works, frt. equald lb. 1.17 - 1.19

Acetophenone, cns., dms lb. 1.21 - 1.85

tech., dms., l.c.l., works lb. .75 - —

N-Acetyl-p-aminophenol, dms., frt. adjusted lb. 1.75 - 1.85

Acetyltributyl citrate, tech., non-ret. dms., c.l., frt. alld. E of Denver lb. .36 - —

l.c.l., frt. alld. E. of Denver lb. .35 - —

tanks, frt. alld E of Denver, lb. .33 - —

Acetyltriethyl citrate, tech., non-ret dms., c.l., frt. alld. E. of Denver lb. .39 - —

l.c.l., frt alld E of Denver, lb. .40 - —

tanks, frt alld E. of Denver, lb. .37 - —

Acetyltri-2-ethylhexyl citrate, non-ret. dms., frt alld lb. .60 - —

Acid, abietic, coml., dms., c.l., works lb. .12 - —

l.c.l., ex whse lb. .1400 - —

cryst., dms. c.l., works lb. .06½ - —

l.c.l., works lb. .07 - .07½

Acetic coml. or redist., 28%, bbls 100 lbs. 4.80 - —

56% bbls 100 lbs 8.25 - —

70% bbls 100 lbs. 9.95 - —

80% bbls 100 lbs. 10.45 - —

glacial syn. CP dms., dlvd. 00 lbs. 22.00 -23.00

tech. dms. c.l. dlvd 100 lbs. 13.75 - —

l.c.l., dlvd. 100 lbs. 14.25 - —

tanks, dlvd 100 lbs. 10.00 - —

USP chys. inclusive, dlvd.. 100 lbs. 31.00 -32.00

Acetic anhydride (see Acetic anhydride above)

Acetylsalicylic, USP, special, makers, primary distrib., bbls. 1,000-lb lots, point of shipt lb. .61 - —

standard, fine cryst., gran., (30-40 mesh) powd. (60 mesh) bbls 1,000-lb lots, same basis lb. .56 - .58

Freight equald, shipt identical quantity over standard routes, from N. Y., Phila. Midland, Mich. Chicago and St. Louis

Adipic, bgs., c.l. dlvd lb. .32 - —

l.c.l., dlvd lb. .34¾ - —

Aminoacetic NF bbls., frt. adjusted lb. 1.50 - 1.75

p-Aminobenzoic, tech. dry, dms., works lb. 1.74 - 1.77

USP dms. 1,000-lb lots or more, works lb. 2.60 - —

smaller lots, works lb. 2.65 - 2.75

p-Aminosalicylic dms. 100 lbs or more, frt adjusted lb 3.70 - —

Anthranilic 99%, 150-lb. dms., dlvd lb. 1.15 - —

Arsenous, tech (see Arsenic, white).

USP (see Arsenic trioxide)

Ascorbic USP dms. 25-100 kilo lots kilo. 12.00 - —

10-kilo lots kilo. 12.35 - —

5-kilo lots kilo. 12.75 - —

bots 1-kilo lots kilo. 13.00 - —

500-gram lots kilo. 13.50 - —

Battery, chys. c.l., works, E 100 lbs 2.35 - —

t.c.l. works E 100 lbs 2.65 - 3.45

Acid, benzoic, tech., bbls., dms., 100-lb lots or more lb. .44 - —

USP, bbls., dms. 100-lb. lots or more lb. .54 - —

Betahydroxynaphthoic (see Acid, b-Oxynaphthoic).

Betaoxynaphthoic (see Acid b-Oxynaphthoic).

Boric, tech., 99.9%, cryst., bgs., c.l., works ton. 126.75 - —

ton lots, ex whse, N. Y. or Chi ton. 178.50 - —

smaller lots, same basis. ton. 183.50 - —

dms., c.l., works ton. 151.25 -172.25

ton lots, ex whse, N. Y. or Chi ton. 203.00 -223.00

smaller lots, same basis. ton. 208.00 -228.00

gran., bgs., c.l., works ton. 101.75 - —

ton lots, ex whse, N. Y. or Chi ton. 153.50 - —

smaller lots, same basis. ton. 158.50 - —

dms., c.l., works ton. 126.25 -147.25

ton lots, ex whse, N. Y. or Chi ton. 178.00 -198.00

smaller lots, same basis. ton. 183.00 -203.00

bulk, c.l., works ton. 95.75 - —

Acacia—Acid, Itaconic

Acid, boric, tech., 99.9% powd., bgs., c.l., works ton. 106.75 - —

ton lots, ex whse, N. Y. or Chi ton. 158.50 - —

smaller lots, same basis. ton. 163.50 - —

dms., c.l., works ton. 131.25 -152.25

ton lots, ex whse, N. Y. or Chi ton. 183.00 -203.00

smaller lots, same basis. ton. 188.00 -212.00

USP boric acid $25 per ton higher

Broenners, bbls lb 1.76 - —

Butyric, 99%, dms., c.l., frt. equald. lb. .34 - —

l.c.l., same basis lb. .34½ - —

tanks, same basis lb. .32½ - —

Capric, dms lb 25 .27

Caprylic, dms lb. 25 .27

Cassella dms. frt alld., 100% basis lb 1.44 1.75

Castor oil, dms lb. .17¾ - .19¾

Chicago paste bbls., frt. alld lb 3.21 —

Chloroacetic mono purif., flake, 99% dms lb. 23½ 25½

tech. flake 96-97% dms., frt. equald lb. 20 21

o-Chlorobenzoic, fib dms., t.l., works lb 1.10 - —

smaller lots, works lb. 1.25 - —

Acid, p-chlorobenzoic, fib dms., 2,000 lbs. or more, works lb 2.25 - —

less than 2,000 lbs., same basis lb 2.30 - —

Chlorosulfonic, dms., c.l., frt. equald lb. 0463 - —

l.c.l., frt. equald lb. 0515 - —

tanks, frt equald lb. 0415 - —

Acid, chlorosulfonic in stainless steel dms. ½c per lb higher

Chromic, 99¾%, dms., c.l., works, frt. equald lb. .29½ - —

l.c.l., dlvd, N. Y. Metropolitan area lb. .30 - .31

NF (see Chromium trioxide).

Cinnamic, refd., bots lb 2.50 3.50

Citric, USP anhyd. gran., fine gran., bgs., dms., c.l. lb. 29½ .30

10,000-lb lots, 1 shipt. lb. .30 - .30½

smaller lots lb. .30½ - .31

hydrous, gran., fine gran., bgs., dms., c.l. lb. 27½ .28

10,000-lb lots 1 shipt. lb 28 - .28½

smaller lots lb 29 - .29½

Powdered citric acid ½c higher

Cleve's, mixed, bbls lb. 1.05 - —

Coconut oil, dist., dms lb. .25 - .27

tanks lb 23 - —

dbl dist., dms lb 25 - .27

tanks lb. 23 - .24

Corn oil, dist., dms lb. .16¾ - .18¾

tanks lb. .14¾ - —

Cottonseed oil, dist., dms lb. .15¾ - .17¾

tanks lb. .13¾ - —

2,3-Cresotic, dms., ton lots, works, lb. 70 - —

less than ton lots, works lb. 72 - —

Cresylic, oaltar, dom., resin and tricresyl phosphate grade, 50%, 207° or above, tanks, frt. equald. gal. 1.10 - —

204° to 207° C., tanks, frt equald gal. 1.20 - —

non-resin grade, 50%, 210° or above, total range over 9° C., dms., c.l., frt. equald. gal. 1.15 - —

l.c.l., frt equald gal. 1.19 - 1.20

tanks, frt. equal l gal. 1.00 - —

tmp., 75% at 215° C. or over, dms., ex whse gal. .95 - —

petroleum, dom., 195° to 214°C., non-ret. dms., 65 to c.l., works, San Francisco and Los Angeles gal. .80 - —

l.c.l. same basis gal. .82 - .84

tanks, same basis gal. .65 - —

200° C to 222° C., tanks, Wilmington, Cal lb. .65 - .72

211° C to 237° C., non-ret. dms., c.l., San Francisco and Los Angeles gal. .76 - —

l.c.l., same basis gal. .78 - .80

tanks, same basis gal. .61 - —

220° C to 242° C., tanks, Wilmington, Cal lb. .62 .67

245° C. to 293° C., tanks, Wilmington, Cal gal. .50 —

Crotonic, fib dms., 200 lbs. or more, works lb. .50 —

Cyanoacetic, tech., bbls lb .90 1.23

Dichlorophenoxyacetic (see 2,4-D).

Diethylbarbituric (see Barbital).

Diglycolic bgs. works lb. .14 —

Dithiodibenzoic, dms., 1,000-lb lots, works lb 1.45 - —

2-Ethyl hexoic, dms., c.l., dlvd. lb 37 - —

l.c.l. dlvd lb .38 - —

tanks, dlvd lb .34½ - —

F, crude, paste, bbls., works lb. 2.10 - —

Folic, bots., fib. cns., kilo-lots or more gram. 1.40 - —

Formic, 85%, cbys., c.l., works lb. .1570 —

l.c.l., works lb. .1620 - .1720

90%, cbys., c.l., works lb. .1625 —

l.c.l., works lb. .1675 - .1775

Fumaric tech. bgs. dms., c.l., frt. alld E lb. .25½ - .27

l.c.l., same basis lb. .26½ - .28

Prices of fumaric acid 1½c. per lb. higher west of Denver.

Gallic NF VII bbls. 1,000-lb lots lb. 2.00 - —

smaller lots lb. 2.02 - 2.22

tech., bbls., 1,000-lb. lots lb. 1.78 - —

smaller lots lb. 1.80 - 2.00

Gamma dry gid bbls. frt allo lb 1.50 —

paste obls frt allo lb 1.43 —

Gluconic, tech. 50% bots lb 25 35

cbys lb 19 —

dms lb 15½ —

l-Glutamic 99½% fib dms. 100-lb lots, frt. alld lb 2.00 - —

25-lb. lots, frt. alld lb 2.05 - —

Glycolic (see Acid hydroxyacetic)

H, dry, bbls., c.l., frt. allo., 100% basis lb 1.00 - —

l.c.l. same basis lb 1.02 - —

Hydriodic, 1.50 s.g. cbys lb 2.94 - —

1.70 s.g., cbys lb 3.23 - —

Hydrobromic medicinal, 48%, cbys., dlvd E lb .37 .43

Hydrochloric, anhyd (see Hydrogen chloride).

18° cbys. c.l., works 100 lbs 2.50 —

l.c.l. dlvd. Metropolitan area 100 lbs 2.90 3.03

tanks, works, frt equald ton 28.00 —

20° cbys. c.l., works 100 lbs 2.75 —

l.c.l., dlvd. Metropolitan area 100 lbs 3.15 - —

tanks, works, frt equald ton 30.00 - —

22° cbys. c.l., works 100 lbs 3.25 - —

l.c.l., dlvd., Metropolitan area 100 lbs 3.65 - —

tanks, works, frt. equald ton 35.00 - —

CP, USP consumers cbys., cs., fra. c.l., works lb. 15¾ - —

l.c.l., same basis lb. .17¼ - .17¾

5-pint bots extra, cs., c.l., same basis lb 20¾ —

l.c.l. same basis lb .22¼ - .23¼

Acid, hydrochloric, CP, USP, prices to dealers 1½c per lb less

Hydrocyanic, cyls. c.l. dlvd lb 70 —

l.c.l., same basis lb. .75 - .90

dilute NF, 2%, 5-lb bots lb .40 —

Hydrofluoric, anhyd (see Hydrogen fluoride).

aqueous, 70%, 55-gal. dms., c.l., t.l., dlvd 100 lbs. 19.25 - —

l.c.l., t.l., dlvd 100 lbs. 20.75 - —

20-gal. dms., c.l., t.l., dlvd 100 lbs. 21.00 - —

l.c.l., t.l., dlvd 100 lbs. 22.50 - —

tanks, works, frt. equald. 100 lbs. 15.50 - —

Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington, and Wyoming. In those states add $2.70 per cwt. for drum delivery.

Hydrofluosilicic dms. works, 30% basis lb. .06 - —

Hydroxyacetic, tech., 70% non-ret bbls., Phila., 100% basis lb. .136 —

tanks, Belle, W. Va., 100% basis lb .095 —

Hypophosphorus, purif., 50%, cbys lb 1.30 1.33

USP, cbys. lb 88 —

Isonicotinic, 100-lb fib dms., works lb. 4.25 - —

Hydrazide (see Isoniazid).

Itaconic, tech., fib. dms., c.l., works lb. .44 - —

l.c.l., works lb. .45 - —

purif., fib. dms., c.l., works lb. .54 - —

l.c.l., works lb. .55 - —

Abbreviations

Used in OPD Market Quotations

alld.	allowed	**distr.**	distributor	**NNR**	New and Nonofficial Remedies
amorph.	amorphous	**djns.**	demijohns		
AMP	American melting point	**dlvd.**	delivered	**No.**	number
		dms.	drums	**nom.**	nominal
anhyd.	anhydrous	**dom.**	domestic	**o-**	ortho
a.p.a.	available phosphoric acid	**E**	east	**ord.**	ordinary
		e.p.	end point	**oz.**	ounce
approx.	approximately	**equald.**	equalized	**p-**	para
artif.	artificial	**exp.**	expressed	**Pac.**	Pacific
ASTM	American Society for Testing Materials	**F**	fahrenheit	**pf**	proof
		ferment.	fermentation	**phos.**	phosphate
		f.f.a.	free fatty acid	**photo.**	photographic
Atl.	Atlantic	**f.f.c.**	free from chlorine	**pkgs.**	packages
Be.	Baume			**powd.**	powdered
bbls.	barrels	**fib.**	fiber	**precip.**	precipitated
bgs.	bags	**f.o.b.**	free on board	**prod.**	producer
bls.	bales	**f.p.a.**	free of prussic acid	**pt**	point
bots.	bottles			**pulv.**	pulverized
b.p.	boiling point	**frt.**	freight	**purif.**	purified
b.p.l.	bone phosphate of lime	**gal.**	gallon	**redist.**	redistilled
		gran.	granular	**refd.**	refined
b.r.	boiling range	**grd.**	ground	**refy.**	refinery
bxs.	boxes	**i.&a.**	iron and aluminum	**reg.**	regular
				resub.	resublimed
C.	centigrade	**i.b.p.**	initial boiling point	**ret.**	returnable
cbys.	carboys			**SD**	specially denatured
CD	completely denatured	**imp.**	imported		
		incl.	included	**s.d.**	single distilled
c.i.f.	cost insurance, freight	**indust.**	industrial	**S. E.**	southeast
		kgs	kegs	**sec.**	secondary
cks.	casks	**l-**	laevo	**secs.**	seconds
c.l.	carlots	**lacq.**	lacquer	**s.g**	specific gravity
cns.	cans	**lb.**	pound	**ship't**	shipment
coml.	commercial	**l.c.l.**	less than carlots	**soln.**	solution
conc.	concentrated	**l.t.l.**	less truckload	**s.u.**	standard unit
CP	chemically pure	**liq.**	liquid	**syn.**	synthetic
cps.	centipoises	**mfrs.**	manufacturers	**tanks.**	railroad tankcars
cryst.	crystal	**m-**	meta	**tech.**	technical
cs.	cases	**m.a.p.**	mixed aniline point	**tert-**	tertiary
ctns.	cartons			**t.l**	truck loads
cyls.	cylinders	**min.**	minimum	**t.w.**	tank wagons
		m.p.	melting point	**USP**	U S Pharmacopoeia
d-	dextro				
dbl.	double	**N-**	nitrogen	**vis.**	viscosity
denat.	denatured	**n-**	normal	**VM&P**	varnish makers & painters
dest-dist.	destructive-distilled	**nat.**	natural		
		neut.	neutral	**W**	west
dl-	dextro-laevo	**NF**	National Formulary	**whse.**	warehouse
dist.	distilled			**w w**	water-white

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

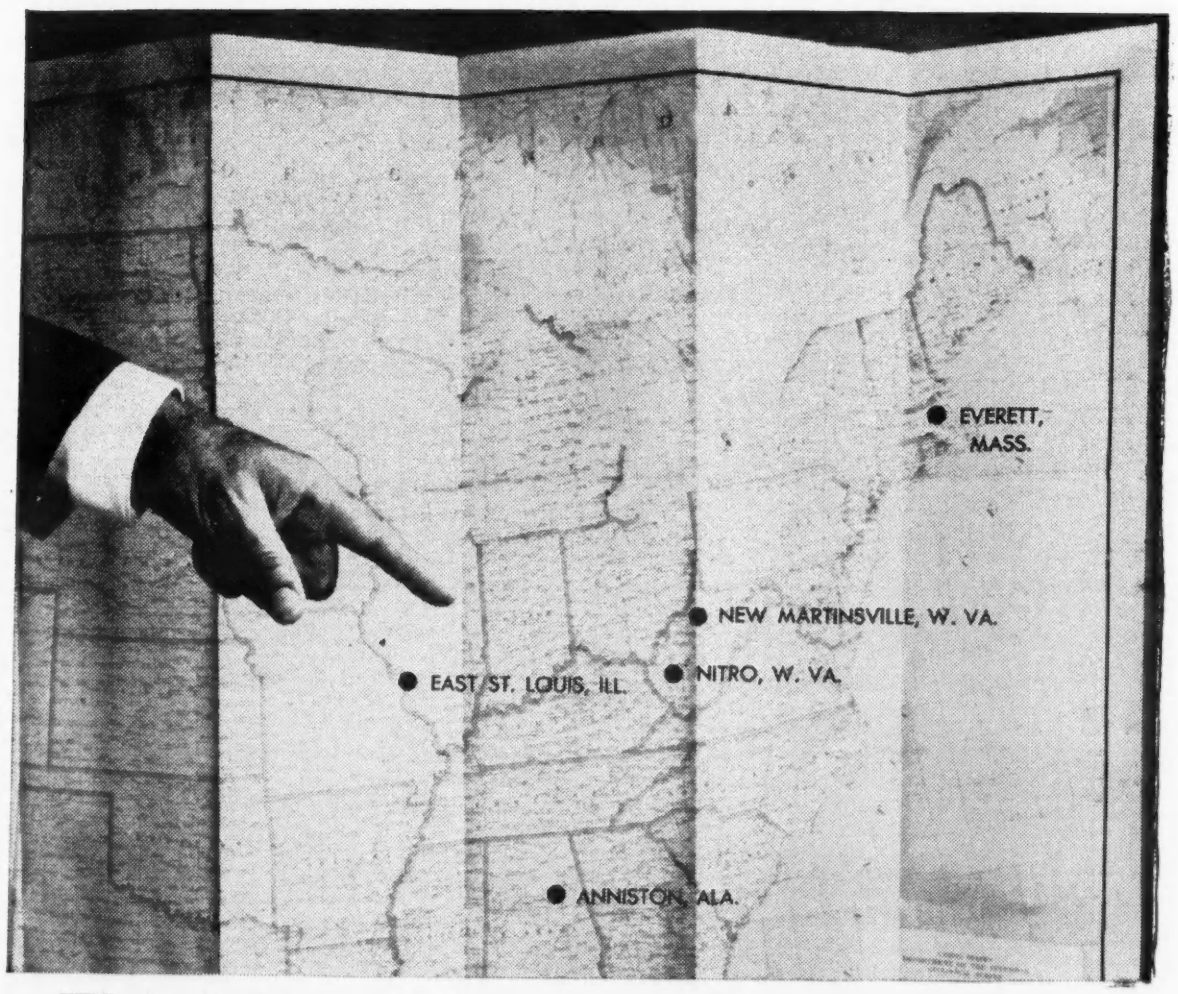
Acid, J, paste, bbls., works, 100% USP, 85%, cbys. lb. .85 - .88
basis lb. 2.45 - —
powd., bbls., same basis lb. 2.50 - 2.85
Koch, bbls., frt. alld., 100% basis. lb. 1.00 - —
L, bbls. works lb. 1.25 - —
Lactic, edible, 50%, bbls., 20 or more lb. .1821- .215
smaller lots lb. .1921- .225
80%, bbls., 5 or more lb. .3121- .37
smaller lots lb. .3171- .375
plastic grade 50%, bbls., 20 or more, works lb. .23 —
1 to 19 lb. .235 - —
80%, bbls., 5 or more lb. .385 - —
tech., 22%, bbls., c.l., works 100 lbs 6.30 - —
t.c.l., works 100 lbs 6.70 - —
cbys., l.c.l., works 100 lbs. 12.20 - —
44%, bbls., c.l., works 100 lbs. 11.45 -11.95
t.c.l., works 100 lbs. 11.85 -12.35
Laurent's, bbls lb. .60 —
Lauric, 90%, dms lb. .36½- .38½
Linseed oil, dist., dms lb. .2000- —
w.w., dms lb. .2300- —
Maleic, cryst, powd, dms lb. .37 .38
Malic, tech., dms lb. .50 —
Mandelic, NF, dms., 1,000-lb. lots. lb 2.35 - —
smaller lots lb. 2.40 - 2.50
Metanilic, dms., works lb. .57 - .75
Methacrylic, glacial, 98%, dms., truckloads, works lb. .47 - —
smaller lots, works lb. .47½- .80
tanks, works lb. .45 - —

Acid, molybdic, 85%, dms, works lb. 1.20 - —
Monochloroacetic, purif. (see Acid, Chloroacetic mono-).
Muriatic (see Acid, hydrochloric).
Myristic, dms lb. .26 - .28
1-naphthol-4 sulfonic (see Acid, Neville and Winthers)
1-Naphthol-5-sulfonic (see Acid, L).
1-Naphthol-5-sulfonic 8-amino (see Acid, S).
1-Naphthol-3,6-disulfonic 8-amino (see Acid, H).
2-Naphthol-6,8-disulfonic (see Acid, Gamma).
5-Naphthol-7-sulfonic 2-amino (see Acid, J).
Naphthol sulfonic mixed (see Acid, Cleve's).
1-Naphthylamine-5-sulfonic (see Acid, Laurent's).
2,Naphthylamine-4,8-disulfonic (see Acid, Cassella).
2-Naphthylamine-6-sulfonic (see Acid, Broenner's).
2-Naphthylamine-7-sulfonic (see Acid, F).
2-Naphthylamine-1-sulfonic (see Acid Tobias).
Nevile and Winther's, dms., frt. alld lb. 1.30 - —
Nicotinic, USP, dms., dlvd kilo. 8.00 - 8.30
Amide, USP (see Nicotinamide).
Nitric, 36° Be, cbys., c.l., works, E 100 lbs. 5.75 - —
t.c.l., works, E 100 lbs. 6.05 - 6.85
38° Be, cbys., c.l., works, E. 100 lbs. 6.25 - —
t.c.l., works, E 100 lbs. 6.55 - 7.35
40° Be, cbys., c.l., works, E. 100 lbs. 6.75 - —
t.c.l., works, E 100 lbs. 7.05 - 7.85

Acid, nitric, 42° Be, cbys., c.l., works, E 100 lbs. 7.25 - —
t.c.l., works, E 100 lbs. 7.55 - 8.35
58.5 to 68% HNO_3, tanks, works, 100% basis 100 lbs. 3.90 - —
94½ to 95½% HNO_3, tanks, works, 100% basis 100 lbs. 4.90 - —
CP, NF, consumer, cbys., extra, c.l., works lb. .18½- —
t.c.l., same basis lb. .20 - .20½
5 pt. bots. extra, cs., c.l., same basis lb. .22½- —
t.c.l., same basis lb. .24 - .25
p Nitrobenzoic, dms., c.l., works. lb. .72 - —
t.c.l., works lb. .73 - —
Oleic, s.d., dms lb. .18½- .20½
tanks lb. .16½- —
dbl. dist. (white), dms. lb. .20½- .22½
tanks lb. .18½- —
Oleum (see Acid, sulfuric, fuming).
Orthochlorobenzoic (see Acid, o-Chlorobenzoic).
Orthocresotinic (see Acid, 2,3-Creosotic).
Oxalic, bbls, c.l., works lb. .16½- —
10,000-lb. lots, works lb. .16¾- —
smaller lots, works lb. .17¾- —
b-Oxynaphthoic, fib, dms, 250 lbs. or more, frt. alld lb. 1.14 - 1.17
Palm, dist., dms lb. .14¾- .16¾
tanks lb. .12¾- —
Para aminobenzoic (see Acid, p-Aminobenzoic).
Para aminosalicylic (see Acid, p-Aminosalicylic).
Parachlorobenzoic (see Acid p-Chlorobenzoic).
Paramethylphenylcinchonic (see Neocinchophen).
Paranitrobenzoic (see Acid p-Nitrobenzoic)
Paratoluidinmetasulfonic (see Acid p-toluidine-m-sulfonic).
Peri, dry, frt. alld. lb. 1.35 - —
paste, frt. alld. lb. 1.30 - —
Phenylacetic, pure, cryst., cns. lb. 1.45 - 1.75

Acid, phenylcinchoninic (see Cinchophen).
Phenylglycolic (see mandelic)
Phosphoric, food grade, 75%, cbys., c.l., works, E., frt. equald 100 lbs. 6.75 - —
t.c.l., same basis 100 lbs. 7.00 - 7.50
tanks, works 100 lbs. 5.35 - —
80%, cbys. c.l., frt. alld. 100 lbs. 7.60 - —
t.c.l., works 100 lbs. 7.85 - 9.10
tanks, works 100 lbs. 5.75 - —
NF, 85%, cbys., c.l., works lb. .0825- —
c.l., works lb. .0850- .0875
tanks works lb. .0640- —
Picric, NF, bbls lb. .85 - —
tech., bbls lb. .44 - —
Propionic, syn., pure, dms., c.l., works lb. .22¾- —
t.c.l., works lb. .23¾- —
tanks, works lb. .20¾- —
Pyrogallic, NF (see Pyrogallol)
tech., bbls lb. 3.17 - 3.25
Ricinoleic (see Acid, castor oil, split).
S., bbls., works lb. 3.25 - —
Salicylic, crude, fib, dms, c.l., frt. alld lb. .35 - —
t.c.l., frt. alld 1,000 lbs. or more lb. .36 - —
sublimed, tech. fib dms., c.l., dlvd lb. .37 - —
t.c.l., dlvd lb. .41 - —
USP, cryst., fib dms lb. .48 - —
powd., fib dms lb. .55 - —
Sebacic, purif., dms., c.l. works lb. .64 - —
t.c.l., works lb. .66 - .70
Soybean oil, dbl. dist., dms lb. .18¾- .20¾
tanks lb. .16¼- —
s.d., dms lb. .17¼- .19¼
tanks lb. .15¼- —
Stearic, dbl. pressed, bgs lb. .15¼- .17¼
single pressed, bgs lb. .14¾- .16¾
triple pressed, bgs lb. .17½- .19½
Succinic, purif., cryst., bbls., works lb. .62 - .75
Sulfanilic, tech., dms. c.l., frt. alld lb. .21 - —
t.c.l., frt. alld lb. .23 - —
Sulfuric 60° Be cbys., c.l., works 100 lbs. 2.00 - —
t.c.l., works 100 lbs. 2.45 - —
tanks, works ton. 18.60 - —
66° Be, cbys., c.l., works. 100 lbs. 2.25 - —
t.c.l., works 100 lbs. 2.55 -3.35
tanks, works ton. 22.35 - —
98%, tanks, works ton. 23.50 - —
99-100%, tanks, works ton. 23.95 - —
CP, NF, consumers, frt. equald. lb. .12¾- —
t.c.l., same basis lb. .14¼- .14¾
5-pt. bots., extra cs., c.l., works, frt. alld lb. .16¼- —
t.c.l., same basis lb. .18¼- .18¾
fuming (oleum), 20%, tanks, works ton. 25.00 - —
40%, tanks, works ton. 29.00 - —
65%, tanks, works ton. 39.50 - —
Tall oil, dms., c.l., works lb. .09 - .09½
tanks, works lb. .07½- .08
Tallow, dist., dms lb. .15¼- .17¼
tanks lb. .13¼- —
hydrogenated, dms lb. .14¼- .16¼
Tannic, NF, fluffy, bbls., 1,000-lb. lots lb. 2.05 - —
smaller lots lb. 2.06 - 2.10
powd., bbls., 1,000-lb. lots lb. 1.95 - —
smaller lots lb. 1.96 - 2.01
tech., dms lb. 1.05 - —
Tartaric, USP, dom., 230 or 250-lb. dms., c.l. lb. .49 - —
10,000-lb. lots, 1 shipt. lb. .49½- —
smaller lots lb. .50 - —
100-lb. dms lb. .51 - —
Imported, bgs lb. .42 - .45
Thioglycolic, refd., cbys., 100% basis lb. 1.35 - 1.55
Thiosalicylic, purif., dms., 1,000-lb. lots, works lb. 4.00 - —
Tobias, bbls., frt. alld lb. .81 - —
p-Toluenesulfonic, dms., c.l., t.l., works lb. .17 - —
t.c.l., works lb. .18 - —
p-Toluene sulfonic, monohydrate, dms., c.l., or t.l lb. .90 - —
125 lbs. to t.l lb. 1.00 - —
o-Toluidine-m-Sulfonic, frt. alld. lb. .70 - —
p-Toluidine-m-sulfonic, bbls., works lb. .92 - 1.04
Trichloroacetic, bots. lb. 2.00 - 2.50
Trichlorophenoxyacetic (see 2,4,5-T).
Tungstic, tech., dms., 1,000-lb. lots, works lb. 3.00 - —
smaller lots, works lb. 3.15 - 3.50
Undecylenic, dms lb. 1.40 - —
Aconite root, bls lb. .50 - .55
Acrolein, tech., dms., c.l., works. lb. .47 - —
t.c.l., works lb. .47½- —
tanks, works lb. .46 - —
Acrylonitrile, dms., c.l., t.l., frt. equald lb. .31 - —
t.c.l., t.t.l., frt. equald lb. .32 - —
tanks, frt. equald lb. .28 - —
ACTH, cryst., bulk, 1,000 units/gram, bots gram 15.00 - —
Adeps lanae (see Lanolin)
Adrenocorticotropic hormone (see ACTH).
Agar, USP, Kobe No. 1, strip, bls. lb. 2.25 - —
powdered, 30 mesh, fib., dms lb. 2.75 - —
dl-Alanine, dms., works lb. 8.50 -11.00
Albumin, blood, dark (see Blood, dried, soluble).
light, dms lb. .65 - 1.00
Egg, edible, cryst., powd., bbls. lb. 1.69 - 1.71
flake lb. 1.65 - 1.67
tech., cryst., bbls lb. 1.08 - 1.10
Alcohol, allyl, dms., c.l. dlvd lb. .32 - —
l.c.l., dlvd lb. .33 - —
tanks, dlvd lb. .30 - —
Amyl, ex fusel oil (see Fusel oil, refd.)
ferment., refd., 128°-132°C., dms., l.c.l., dlvd lb. .43 - —
ACS grade, dms., l.c.l., dlvd lb. .45 - —
ex-pentane, mixed, amyls, dms., c.l., frt. alld lb. .18½- —
l.c.l., frt. alld lb. .19½- —
tanks, frt. alld lb. .16 - —
primary, dms., c.l., frt. alld. lb. .19¾- —
l.c.l., frt. alld lb. .20¾- —
tanks, frt. alld lb. .17¾- —
sec-synthetic, dms., c.l., works, frt. alld lb. .19 - —
l.c.l., works lb. .20 - —
tanks, works lb. .17 - —
tert-synthetic, dms., c.l., frt. alld, E lb. .18½- —
l.c.l., frt. alld E lb. .19½- —
tanks, frt. alld E lb. .16 - —
1-pentanol, (syn normal), dms., c.l., works lb. .41½- —
l.c.l., works lb. .42½- —
tanks, works lb. .39½- —
2-pentanol, dms., c.l., works lb. .65 - —
l.c.l., works lb. .70 - —
tanks, works lb. .60 - —
Benzyl, NF, dms lb. .64 - .79
tech., dms., dlvd lb. .47½- .49
n-Butyl, ferment, dms., c.l., frt. alld lb. .16½- —
l.c.l., frt. alld lb. .17½- —
tanks, frt. alld lb. .14 - —
synthetic, dms., c.l., dlvd lb. .16½- —
l.c.l., dlvd lb. .17½- —
tanks, dlvd lb. .14 - —
sec-synthetic, dms., c.l., dlvd. lb. .14½- —
l.c.l., dlvd lb. .15½- —

GOOD NEWS IF YOU'RE EAST OF THE MISSISSIPPI



This Monsanto map may save you money on Muriatic Acid

If you're east of the Mississippi, or in a bordering state, any one of these five Monsanto plants can deliver to you high-quality Muriatic Acid and offer excellent service. Just tell us how much you want, and we'll check our map and calculate freight rates for delivered cost.

These plants offer you *prompt* delivery of Muriatic Acid of equal or *better* quality (water-white 20°-22° Baume) than you are getting now.

Monsanto can supply—anywhere in the U. S.—sulfuric acid, chlorosulfonic acid and nitric acid.

For a NEW PRICE QUOTATION on the heavy acids you need, write or call:

MONSANTO CHEMICAL COMPANY, Inorganic Chemicals Division, Dept. HC-8, 710 N. 12th Blvd., St. Louis 1, Mo.

...or any of these District Offices:

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MONSANTO

WHERE CREATIVE CHEMISTRY WORKS WONDERS FOR YOU

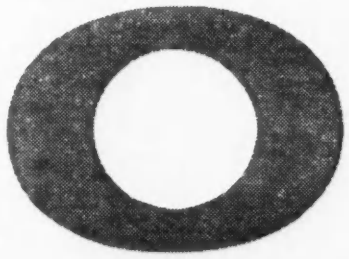
Alcohol, n-butyl, sec-synthetic, tanks, dlvd ..... lb. .12 - —
tert-synthetic, dms., c.l., frt. alld. lb. .14 - —
l.c.l., frt. alld ..... lb. .15 - —
tanks, frt, alld. ..... lb. .12 - —
Capryl, 85%, dms., c.l. and t.l., works lb. .18 - —
l.t.l., same basis ..... lb. .18½ - —
tanks, frt. equald ..... lb. .16½ - —
sec., 92-99%, dms., c.l. ..... lb. .22 - —
l.c.l. ..... lb. .23 - —
tanks ..... lb. .19½ - —
Cetyl, extra, 6lb cns. 500-lb lots or more lb. .65 .72
NF, 6lb. cns., 140-lb lots or more lb .68 —
Cinnamic, bots lb 2.15 2.75
Decyl mixed isomers, dms., c.l., dlvd lb. .23½ - —
l.c.l. dlvd ..... lb. .24½ - —
tanks, dlvd ..... lb .21 - —
perfume grade, bots ..... lb. 1.75 2.00
normal (see 1-Decanol)
Denat. CD-12, CD-13 CD-14, CD-17, dms., c.l., dlvd., E of Rockies gal. .64½ - .66
l.c.l., same basis gal. .69½ - .77
tanks, dlvd same basis, gal. .48½ .50
Tankcar sales require written authorization by Alcohol and Tobacco Tax Div.
Proprietary solvent, dms., c.l., dlvd. E of Rockies gal. .66 - —
l.c.l., same basis gal. .71 - .77
tanks, same basis gal. .50 - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Div.
SD1, dms., dlvd. E. of Rockies, gal. .66 - —
l.c.l., same basis gal. .71 - .77
tanks, same basis gal. .50 - —
SD2B, dms., c.l., dlvd. E of Rockies gal. .64 - —
l.c.l., same basis gal. .69 - .75
tanks, same basis gal. .48 - —
SD3A, dms., c.l., dlvd. E of Rockies gal. .635 - —
l.c.l. same basis gal. .685 - .745
tanks same basis gal. .475 - —
SD23A, dms., c.l., dlvd. E of Rockies gal. .655 - —
l.c.l., same basis gal. .705 - .765
tanks, same basis gal. .495 - —
SD23H, dms., c.l., dlvd. E. of Rockies gal. .66 - —
l.c.l., same basis gal. .71 - .77
tanks, same basis gal. .50 - —
SD29, dms., c.l., dlvd. E. of Rockies gal. .645 - —
l.c.l., same basis gal. .695 - .755
tanks, same basis gal .485 - —
SD30, dms., c.l., dlvd. E. of Rockies gal. .63 - —
l.c.l., same basis gal. .68 - .74
tanks, same basis gal. .47 - —
SD35A, dms., c.l., dlvd. E of Rockies gal. .665 - —
l.c.l. same basis gal. .715 - .775
tanks, same basis gal. .505 - —
SD40, dms., c.l., dlvd. E. of Rockies gal. .643 - —
l.c.l., same basis gal. .695 - .755
tanks, same basis gal. .485 - —
West coast dlvd prices are the same as eastern prices, except in Idaho, Montana, Oregon and Washington, where a 5c. differential on tankcars is maintained
Diacetone alcohol-free, dms., c.l., dlvd lb. .15 - —
l.c.l., dlvd ..... lb. .16 - —
tanks, dlvd ..... lb. .125 - —
tech., dms., c.l., dlvd ..... lb. .143 - —
l.c.l., dlvd ..... lb. 1.55 - —
tanks, dlvd ..... lb .12 - —
Ethyl, 190 pf., USP, tax paid, dms., c.l., dlvd. E. of Rockies gal.20.58 - —
l.c.l. same basis gal.20.63 -20.69
tanks same basis gal.20.42 —
tax free, dms., c.l., dlvd. E. of Rockies gal. .63 - —
l.c.l. same basis gal. .68 - .74
tanks, same basis gal. .47 - —
absolute, 200 pf. tax paid, dms., dlvd. E. of Rockies gal.21.68 - —
l.c.l. same basis gal.21.73 -21.79
tanks, same basis gal.21.52 - —
2-Ethylbutyl, dms., c.l. works lb. .30 - —
l.c.l., works ..... lb. .30¾ - —
tanks, works ..... lb. .28 - —
2-Ethylhexyl, dms., c.l. dlvd. E. lb. .24¼ - —
l.c.l., same basis ..... lb. .25¼ - —
tanks, same basis ..... lb. .21¾ - —
Furfuryl cns. works ..... lb. .29 - —
dms., c.l., Memphis, Tenn. .... lb. .20 - —
Newark N J ..... lb. .21½ - —
l.c.l., Memphis, Tenn ..... lb. .21 - —
Newark N J ..... lb. .22½ - —
tanks, Memphis, Tenn ..... lb 184 - —
Hydroabietyl, tech., solid, Zone 1, dms., c.l., dlvd lb. .29¼ - —
l.c.l., dlvd ..... lb. .29¾ - .30¼
tanks, dlvd ..... lb. .27¼ - —
Zone 1 for hydroabietyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo. and the western part of Texas.
Isoamyl, dms., c.l. works, frt. alld. E lb. .28 - —
l.c.l., same basis ..... lb. .29 - —
tanks, same basis ..... lb. .25 - —
Isobutyl, dms., c.l., dlvd ..... lb. .15½ - —
l.c.l., dlvd ..... lb. .16½ - —
tanks, dlvd ..... lb. .13 - —
Iso-octyl, dms., c.l., dlvd. E... lb. .23½ - —
l.c.l., dlvd E ..... lb. .24½ - —
tanks, dlvd E ..... lb. .21 - —
Isopropyl, refd. 91%, dms., c.l., dlvd gal. .53 - —
l.c.l., dlvd ..... gal. .60 - —
tanks, dlvd ..... gal. .37 - —
95%, c.l., dlvd ..... gal. .55 - —
l.c.l., dlvd ..... gal. .62 - —
tanks, dlvd ..... gal. .39 - —
99%, dms., c.l., dlvd ..... gal. .57 - —
l.c.l., dlvd. ..... gal. .64 - —
tanks, dlvd ..... gal. .41 - —
Lauryl, bots. ..... lb. 2.00 - 2.50
Methyl (see Methanol).
Methylamyl (see Methyl isobutyl carbinol).
Octyl, perfumer's grade, bots lb. 1.60 - 3.25
tech. (see Octanol, normal).
2-Phenylethyl, extra, dms ... lb. 1.14 - 1.45
standard, dms ..... lb. 1.10 - 1.60
n-Propyl, dms., c.l., dlvd ..... lb. .13½ - —
l.c.l., dlvd ..... lb. .14½ - —
tanks, dlvd ..... lb. .11 - —
Tetrahydrofurfuryl, dms., c.l. or t.l., f.o.b. Memphis, Tenn lb. .37 - —
l.c.l. or l.t.l., f.o.b. Memphis, Tenn lb. .38 - —
f.o.b. Newark, N. J ..... lb. .40 - —
tanks, dlvd. E. of Denver ... lb. .363 - —
dlvd. W. of Denver ..... lb. .373 - —
Tridecyl, mixed isomers, dms., dlvd lb. .26½ - —
l.c.l., dlvd ..... lb. .27½ - —
tanks, dlvd ..... lb. .24 - —
Wood (see Methanol).
Aldol, 95%, dms., works ..... lb. .23 - —
denaturing grade, dms ..... gal. 2.15 - —
Aldrin, tech., fib. dms., c.l., t.l., dlvd lb. .80 - —
l.c.l., dlvd ..... lb. .85 - —
Aletris root, bgs ..... lb. 1.75 - 1.85
Algin (see Sodium alginate).
Alizarine (see 1,2-dihydroxy anthraquinone).
Allethrin, 90%, dms., frt. alld lb.26.80 -28.90
sols., 20%, dms., 200-2,000 lb. lots, frt. alld lb. 6.50 - 6.53
2½%, dms., frt. alld ..... lb. .95 - 1.00
Allspice (see Pimento).
Allyl bromide, cbys., works ..... lb. 1.45 - 1.50
Chloride, dms., c.l., dlvd ..... lb. .17 - —
l.c.l. dlvd ..... lb. .18 - —
tanks dlvd ..... lb. .15 - —
Aloe, Cape, cs ..... lb. .50 - —
powd., cs ..... lb. .65 - —
Curacao, kgs ..... lb. .60 - —
Aloin, USP, bbls., dms., kgs .... lb. 3.35 - 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpineol (see a-Terpineol).
Alphatocopherol (see a-Tocopherol).
Alum, ammonium, gran., bgs., works 100 lbs 4.30 - —
lump, dms., works 100 lbs 5.05 - —
powd., dms., works 100 lbs 5.20 - —
USP, burnt, dms. ..... lb .20 - .21
hydrous, dms ..... lb 07¾ .08
Potassium, gran., bgs., works, 100 lbs 4.55 - —
lump, dms., works 100 lbs 5.30 - —
powd., dms., works 100 lbs 5.45 - —
USP, burnt, dms ..... lb 20 .21
hydrous, dms ..... lb 07¾ .08
Potash-chrome, dms ..... lb 17 —
Alumina, calcined, bgs., c.l., works lb. .0455 - —
l.c.l., works ..... lb. .048 - .0755
Aluminum acetate, basic soln., 24%, bbls., l.c.l., works lb .14 —
Chloride, com'l, anhyd., dms., c.l., works, frt. equald lb. .16 - —
l.c.l., works, frt. equald. lb. .16½ - —
cryst., dms., c.l., works. 100 lbs. 16.00 - —
l.c.l., works ..... 100 lbs. 17.50 - —
soln. 32°, cbys, c.l., works lb. .0445 - —
l.c.l., works ..... lb. .0520 - .1290
tanks, works ..... 100 lbs. 3.45 - —
NF, gran., dms., works .... lb. .29 - .30
Aluminum fluoride, tech., anhyd., bgs., c.l., works lb. .16¾ - —
l.c.l., works ..... lb. .17¾ - .19¾
Aluminum fluoride in fib. dms. 0.35c. per lb. higher.
Formate, basic soln., dms., c.l., works lb. .12 - —
l.c.l., works ..... lb. .12½ - —
Hydrate, heavy, bgs., c.l., frt. frt. equald lb. .032 - —
20,000-40,000 lb. lots, same basis lb. .0345 -
2,000-20,000 lb lots, same basis lb. .0443 - —
bulk, same basis ..... lb. .0295 - —
Hydroxide, gel, pharmaceutical, 14-15%, Al_2O_3, fib. dms., works lb. .22 - —
contract, works lb. .21 - —
9-9½% Al_2O_3, fib. dms., works lb. .19 - —
contract, works lb. .18 - —
dried, USP XIV, fib. dms., works lb. .82½ - —
contract, works lb. 79½ - —
tech. powder (see Aluminum hydrate).
Metal, 99%+, ingots, 10,000-lb. lots, frt. alld lb. .2710 - —
pigs, 10,000-lb lots, frt. alld. lb. .2500 - —
Oxide, amorphous (see Alumina, calcined).
Paste, lining, extra-fine, dms lb. .68 - —
standard grade, dms ... lb. .48 - —
Aluminum powder, lining extra, fine, dms lb. 1.09 - —
standard grade, dms lb. 78½ - —
Aluminum powder and paste prices are f.o.b. shipping point. Add 1c per lb for 100 lb dm., 1½c per lb for 50-lb dm., 3c per lb for 10-lb can and 5c to 12c per lb for smaller containers. Deduct 1c per lb for single shipment of 400 to 1,499 lbs., 2c for 1,500 to 4,999 lbs., 3c for 5,000 to 29,999 lbs. and 4c for 30,000 lbs. or more. Where destination is within the continental U. S. a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs. or over.
Resinate, precip., 2.1% Al, dms., 100 lbs. 7.25 —
Stearate, dibasic, ctns., c.l lb .37 —
l.c.l. ..... lb .38 .42
monobasic, ctns., c.l ..... lb .37 —
c.l. ..... lb .38 .42
tribasic, ctns., c.l ..... lb .37 —
l.c.l. ..... lb .38 .42
Sulfate, coml. bulk c.l. works 100 lbs 1.85 - —
grd., bgs. c.l. works ton 37.00 - —
lump, bgs. c.l., works ton 40.00 - —
Iron-free, bgs. c.l. works, frt equald 100 lbs 3.55 - —
l.c.l. works frt equald 100 lbs. 3.95 - 4.55
Aluminum sulfate prices $1 per ton higher in the South.
USP, gran., dms., works lb. .29 - .30
powd., dms. works lb .36 .37
Trihydrate, heavy (see Aluminum hydrate, heavy).

Oxygen doesn't always mean "life"

Eastman antioxidants are extending the useful life of products in many fields

Many products need protection *against* oxygen.

Lard, a typical example, turns rancid at room temperatures unless protected by the addition of an antioxidant. "Returns" and complaints of off-flavor and rancidity have long been the bane of vendors of shelled nuts. Today, thanks to the availability of an Eastman antioxidant, nut



processors can practically eliminate such complaints and greatly expand their product's distribution. The longer shelf life made possible by Eastman antioxidants, has likewise helped potato chip manufacturers broaden their selling area.

Eastman antioxidants have also helped to develop a new outlet for inedible fats and oils . . . animal feeds. Added to feed in amounts up to 4% to 5%, these fats improve the feed and represent a market of 200-300 million pounds annually. This was a totally new market for fats and helped ease a fat-surplus problem for the meat industry. Yet, it would have been impossible if antioxidants had not been available to stabilize the fat and keep the feeds fresh and palatable.

Eastman antioxidants protect many different food products, but an even broader field is covered by their use in industrial products.

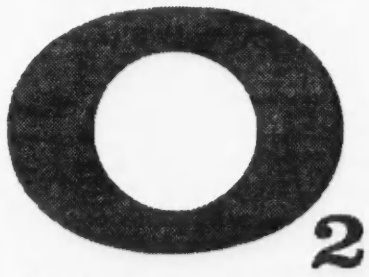
In gasoline and motor fuels, antioxidants made by Eastman protect against the formation of power-robbing gum.

In transformer and turbine oils, Eastman antioxidants extend service life by preventing the quick breakdown that might otherwise occur at the high working temperatures encountered.

In plastics, Eastman antioxidants help stabilize plasticizers for vinyl resins and are also used to protect polyethylene against deterioration during molding and extrusion and upon extended exposure.

In rubber, antioxidants play a well-known role in protecting against aging and heat deterioration. Rubber also needs protection against ozone – one of the most powerful oxidizing agents known. Even the minute concentration of ozone in the atmosphere can severely damage rubber products. To combat this attack, Eastman antiozonants are available.

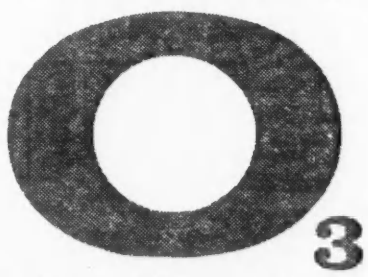
In the agricultural field Eastman antioxidants are extending the effectiveness of such important pesticides



as pyrethrum. In poultry feeds other Eastman antioxidants are widely used to bring more chicks to faster and more profitable maturity by protecting vitamin content, stimulating growth, improving pigmentation, increasing the utilization of Vitamin A from carotene and safeguarding chicks against such deficiency diseases as encephalomalacia.

This list could be continued to show that whenever oxygen poses a destructive threat to organic compounds there is a good chance that an Eastman antioxidant is available for effective counter measure.

Perhaps one of the many antioxidants made by Eastman could help you add life to some product you



make or use. Perhaps, as the foregoing examples illustrate, one of these antioxidants could help you combat rancidity, bad odor, off-flavor, loss of nutrient value, discoloration, embrittlement or aging.

Eastman antioxidants have helped many companies extend present markets and even develop new markets. If your product – be it food, agricultural or industrial–needs protection against oxidative deterioration, call in Eastman. Eastman's food and industrial antioxidant laboratories are staffed with specialists anxious to help you explore the benefits, the use, and the cost of antioxidants.

For more information, write to EASTMAN CHEMICAL PRODUCTS, INC., a subsidiary of Eastman Kodak Company, KINGSPORT, TENNESSEE.

Products in these fields know the value of Eastman antioxidants

FOOD	INSECTICIDES
RUBBER	ANIMAL FEEDS
PLASTICS	HYDRAULIC FLUIDS
PETROLEUM	TRANSFORMER OILS
VEGETABLE and ANIMAL OILS	

Eastman ANTIOXIDANTS

to combat oxidative deterioration

SALES OFFICES: Eastman Chemical Products, Inc., Kingsport, Tennessee; New York City; Framingham, Mass.; Cincinnati; Cleveland; Chicago; St. Louis; Houston. West Coast: Wilson Meyer Co., San Francisco; Los Angeles; Portland; Salt Lake City; Seattle.

Ambergris, gray, bots ..... oz 8.00 - 10.00
p-Aminoacetanilide, frt. alld. ... lb 1.57 - —
Aminoazotoluene base, bbls., 100% basis lb 1.03 - 1.18
Aminoethyl ethanolamine, dms., c.l., dlvd lb. .475 - —
t.c.l. dlvd ..... lb. .485 - —
tanks, dlvd ..... lb. 45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld lb. .44 - —
t.c.l. frt alld ..... lb. 45 - —
tanks, frt. alld ..... lb 42 - —
m-Aminophenol, dist., dms., in lots lb 2.05 - —
smaller lots ..... lb 2.50 - —
p-Aminophenol, dms., frt. alld lb 1.15 - —
Aminophylline, USP 100-lb dms lb 3.55 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald ton 75.00 - —
refrigeration, tanks works frt equald ton 82.50 - —
aqueous, tanks, works, anhyd basis ton 83.00 - —
Ammoniacal liquor (see Ammonia aqueous).
Ammoniac, sal, gray, bgs c.l., works, frt. equald 100 lbs. 8.25 - —
t.c.l., same basis 100 lbs. 9.25 - —
white ... n (see Ammonium chloride tech.).
Ammonium acetate, purif., dms. lb. .41 - —
Benzoate USP dms., kgs. 4,000-lb. lots frt. alld lb. 80 - —
smaller lots frt. alld lb .81 - 1.08
Biborate gran. dms. c.l., works ton 319.50 - —
ton lots, ex whse ... ton 397.00 - —
smaller lots, ex whse ... ton 402.00 - —
Bicarbonate, dom., dms., c.l., works 100 lbs. 7.00 - —
t.c.l., works 100 lbs 9.00 - —
Bichromate dms. works lb 42 - .43
Bifluoride, dms., dlvd ..... lb. .2145- .2245
Bromide, NF gran. bbls lb 43 - —
Powdered ammonium bromide 10c per lb higher
Carbonate, USP, lump, dms. lb. .16 - —
Chloride, tech., fine gran., bgs., c.l., works 100 lbs 5.75 - —
t.c.l., works 100 lbs. 7.75 - 8.20
USP, gran. bbls., dms ... lb. 17¼ - —
Citrate, dibasic, bbls lb. 77 - —
Dichromate (see Ammonium bichromate)
Fluoride (see Ammonium bifluoride).
Hydroxide (see Ammonia aqueous).
Hypophosphite, NF, dms. ... lb 3.07 - —
Iodide, NF, dms., bots ... lb 4.26 - 4.38
Linoleate, 80% dms. works lb .50 - .55
Nitrate, dom., fert. grade, 33.5% N., bgs., western works, frt. equald, base price ton 64.00 - —
imp., Canadian, 33.5% N, eastern, bgs., c.l., ship't point, frt. equald to $3 per ton, base price ton 64.00 - —
August discount ton 5.00 - —
western, bgs., c.l., f.o.b cars, Los Angeles ton 79.69 - —
with dolomite, 20.5% N, bgs., Hopewell, Va ton 31.00 - —
Oxalate fine gran. dms lb .26½ - .31
Pentaborate, gran., bgs., c.l., works ton 187.50 - —
ton lots, ex whse ... ton 273.50 - —
smaller lots, ex whse ... ton 278.50 - —
Ammonium pentaborate powder $10 per ton higher
Persulfate, kgs lb. .38 - 47½
Phosphate, coml., bgs., c.l., works, frt. equald lb. .09¼- —
t.c.l., same basis ... lb. .10 - —
dibasic, NF, V bbls, dms ... lb. .46 - —
tech. bgs. c.l. works, frt. equald lb. .09¼- —
t.c.l. same basis ... lb. .10 - —
Salicylate, NF, dms., kgs ... lb 1.62 - 1.64
Silicofluoride, dms., works lb 11¾ - 13¼
Sulfamate, bgs., c.l., t.l., works lb 18 - —
t.c.l. works lb .22 - —
Sulfate, coke-oven, bulk, producing ovens, base price ton 32.00 - —
syn., bulk, c.l. f.o.b. works ton 32.00 - 42.00
purif., dms., works ... lb. .10 - .10½
Sulfide liq., 40-44%, tanks frt. equald, 100% basis ton 160.00 - —
Sulfocyanide, tech. (see Ammonium thiocyanate)
Thiocyanate tech. dms., c.l., works lb .20 - —
t.c.l. works lb .22 - .26
Thioglycollate, coml., cbys., 100% basis lb 1.35 - 1.65
highly purif., cbys., 100% basis, lb. 1.70 - 1.96
Thiosulfate, cryst., photo grade, fib dms. frt. alld lb. 65 - —
d-Amphetamine hydrochloride dibasic bots lb 28.00 - —
dl. dms ... lb 6.00 - —
d-monobasic bots ... lb 28.00 - —
d-Phosphate, dibasic, bots ... lb 28.00 - —
dl. dms ... lb 6.00 - —
d-Sulfate, dms ... lb 28.00 - —
dl. dms ... lb 6.00 - —
Amyl acetate ex fusel oil, tech., dms c.l. frt alld. E of Rockies lb. .18 - —
t.c.l. same basis lb. .19 - —
tanks, same basis lb. 15½ - —
ex pentane reg. dms. c.l. dlvd. lb. .18½- —
t.c.l., dlvd ... lb. .19½- —
tanks, dlvd ... lb. .16 - —
tech., dms., c.l. dlvd ... lb. .16½- —
t.c.l., dlvd ... lb. .17½- —
tanks, dlvd ... lb. .14 - —
syn., oxo process, dms., c.l., dlvd lb. .19¾- —
t.c.l. dlvd ... lb. .20¾- —
tanks, dlvd ... lb. .18 - —
Alcohol (see Alcohol, amyl).
n-Butyrate, dms ... lb 1.00 - 1.25
Cinnamic, aldehyde, dms ... lb 1.70 - 2.20
Nitrite, USP, bots ... lb 1.75 - 1.83
Salicylate, cns, dms ... lb .82 - 1.10
o-tert-Amyl phenol, dms., c.l., works, lb. .49½ - —
t.c.l. works ... lb. .50½- —
tanks, works ... lb 47 - —
p-tert-Amyl phenol, dms., c.l., works, lb .26¾ - —
t.c.l. works ... lb. .27¾ - —
tanks, works ... lb 25¾ - —
Anethol, cns., dms ... lb. 1.60 - 1.80
tech., dms ... lb 1.10 - 1.15
Angelica root, dom., bls ... lb. .80 - .90
Aniline oil, dms., c.l., frt. alld lb. .22 - —
t.c.l., frt alld ... lb. .23 - —
tanks, frt. alld ... lb. .21 - —
tankwagons, min. 2,000 gals. lb. .21½- —
Salt, dms. c.l. truckloads, 20,000 lbs., min. frt. alld lb. .33 - —
t.c.l., same basis ... lb. .35 - —
Anise seed, Mexican, bgs ... lb. .25 - —
Spanish, bgs ... lb. .25 - —
Syrian, bgs ... lb. .25 - —
Anisic aldehyde, bots., dms ... lb 1.95 - 2.70
o-Anisidine, dms., c.l., frt. alld ... lb. .80 - —
t.c.l., same basis ... lb. .82 - —
tanks, same basis ... lb. .78 - —
p-Anisidine, dms., works ... lb. .97 - —
Annatto seed, whole, bgs ... lb. .15 - .17
Anthracene 90-95% bbls., ton-lots, works lb. .83 - —
smaller lots, works lb. .95 - —
Anthraquinone, 99.5% bbls c.l., frt. alld lb. .83 - —
t.c.l., same basis lb. .86 - —
electrical grade bbls., t.c.l., same basis lb. .91 - —
Antimony butter (see Antimony trichloride)
Metal, bulk, c.l., mines ... lb. .33 - —
es., c.l., mines ... lb. .33½- —
Oxide, bgs., c.l., frt. alld ... lb. .27 - —
t.c.l., frt. alld ... lb. .28½- —
Sulfide, approx 65% bgs., dlvd lb. 23 - .26
Trichloride, anhyd., solid, pails, c.l., works lb. .41 - —
t.c.l., works ... lb. .43 - —
Antimony-potassium tartrate, tech., powd., dms lb. .69½- .74½
USP, powd., dms ... lb. .74½- 73½
Antipyrine, NF, 200-lb. bbls lb 3.50 - —
Apomorphine hydrochloride, USP, 25 oz. lots ... oz. 35.60 - —
Areca nuts, powd., bbls ... lb. .13 - —
Arecoline hydrobromide, NF, bots., tins oz 4.50 - 6.00
l-Arginine monohydrochloride, dms, 1 kilo lots kilo 74.80 - —
Arnica flowers (true montana), bls, lb. 2.25 - —
Arsenic metal, lump, bbls, ex whse, lb. .54 - —
Trioxide, USP, dms ... lb. .48 - —
White, powd., bbls., c.l., dlvd lb. .05½- —
t.c.l., dlvd ... lb. .06½- .07½
Asafetida, en ... lb. .40 - —
powd., bbls., dms ... lb. .85 - —
Asbestine (see Talc, fibrous, N. Y.).
Asbestos, Canadian, crude, 6D, c.l. (30 tons), mines ton 82.00 - —
7D, c.l. (30 tons), mines ton 72.00 - —
7F, c.l. (30 tons), mines ton 68.25 - —
7H, c.l. (30 tons) mines ton 68.00 - —
7K, c.l. (30 tons), mines ton 48.30 - —
7M, c.l., (30 tons), mines ton 42.00 - —
7R, c.l. (30 tons), mines ton 41.00 - —
7RF, c.l (30 tons), mines ton 42.00 - —
7T, c.l., (30 tons), mines ton 39.00 - —
7TF, c.l. (30 tons), mines ton 42.00 - —
Asbestos c.l. prices are in U. S. funds, t.c.l. lots $4 per ton higher.
Asphalt, gilsonite, black jet, bgs., c.l., mines ton 37.00 - —
select 350° F. fusing pt., bgs., c.l., mines ton 38.00 - —
270°-295°F., fusing pt., bgs., c.l., mines ton 37.00 - —
seconds, 300°-390°F fusing pt., bgs., c.l., mines ton 32.00 - —
Manjak, No. 10, crude, dms., works lb. .06¼- —
Petroleum, cut-back, tanks, tankwagon, refy. gal. .09 - —
emulsion, tanks, tankwagon refy gal. .09½- —
steam-refd., 50-80 penetration, tanks, tankwagon, refy ton 21.00 - —
85-300 penetration, tanks, tankwagon refy ton 20.00 - —
Aspirin (see Acid acetylsalicylic)
Atropine, USP, bots ... oz. 3.90 - 4.50
Sulfate, USP, bots ... oz. 2.25 - 2.65

B

Bacitracin, bulk, 1,000,000,000 or more units 50,000 units. 70 - —
less than 1,000,000,000 units. 50,000 units. 75 - —
Balm of Gilead buds, dried, bgs lb. 1.35 - 1.45
Barberry root bark, bgs ... lb. 28 - .30
Barbital, NF, 100-lb. dms ... lb. 4.50 - —
Sodium, NF, dms ... lb. 4.75 - —
Barium carbonate, precip., bgs., c.l., works ton 100.00 - —
smaller lots, works ton 110.00 - —
Chlorate, kgs., works lb .32 - .36
t.c.l., t.l.l., frt. equald ton 285.00 - —
Chloride anhyd. bgs., c.l., works. ton 165.00 - —
t.c.l., works ... ton 175.00 - —
NF, cryst., 100 lb. dm ... lb. .22 - —
tech., cryst., bgs., c.l., works. 100 lbs. 6.50 - —
t.c.l., works ... 100 lbs 7.00 - —
Chromate, bgs., frt. equald lb. .35 - —
Dioxide (see Barium peroxide)
Hydrate, cryst., bgs., c.l., t.l., frt. equald ton 208.00 - —
t.c.l., t.l.l., frt. equald ton 218.00 - —
Monoxide (see Oxide).
Nitrate, bbls., c.l., t.l. dlvd ... lb .16 - —
t.c.l. t.l.l. dlvd ... lb .17 - —
Oxide, grd., dms., c.l., t.l., frt. equald ton 275.00 - —
Peroxide dms. frt. equald lb. .20 - —
Stearate, ctns., c.l., frt alld lb .39 - —
t.c.l., same basis ... lb. 40 - 44
Sulfate, tech. (see Barytes and blanc fixe) X-ray dms ... lb 15 - .15½
Sulfide, dms., c.l., works ... ton 85.00 - —
t.c.l. works ... ton 95.00 - —
Barytes, Southern, off-color, bgs., mines ton 25.00 - —
95-75% bgs. mines ... ton 25.00 - —
water-grd., paper bgs., c.l., St. Louis ton 49.00 - —
ex-whse, N. Y ... ton 70.85 - —
bauxite, bulk, mines ... ton 6.75 - 10.00
Bay leaves (see Laurel leaves)
Belladonna leaf, bls ... lb .35 - .37
root, bls ... lb. 45 - .50
Bentonite, dom., 200 mesh, bgs., c.l., mines ton 14.00 - —
imp. Italian, white, high gel., bgs., 5-ton lots, ex whse ton 84.00 - —
1 ton lots, ex whse ton 87.00 - —
low gel., bgs., 5-ton lots, ex whse ton 82.35 - —
1 ton lots ex whse ... ton 85.35 - —
Benzal chloride, cbys., works ... lb. 44 - —
Benzaldehyde, NF, dms ... lb. 74 - 1.05
tech., cbys., dms., t.l. ... lb. .43 - —
smaller lots ... lb. 44 - —
Benzene (see Benzol), Hexachloride, 25% and 99% gamma isomer (see Lindane)
tech., high gamma, dms., c.l., dlvd., gamma unit-lb. .0075- .008
t.c.l., works, gamma unit-lb. .009 - .0095
low gamma, dms., c.l. dlvd.,, gamma unit-lb. .0075- —
t.c.l., works, gamma unit-lb. .009 - —
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis ... lb. 1.19 - —
t.c.l., same basis ... lb. 1.21 - —
Sulfate, tech., frt. alld ... 100% basis lb. 1.21 - —
Benzocaine, dms. ... lb 3.48 - 3.50
Benzol, coaltar, pure or nitration, tanks, works:—
Bethlehem, Pa ... gal. .36 - —
Birmingham district ... gal. .36 - —
Chicago district ... gal. .36 - —
Cleveland district ... gal. .36 - —
Geneva, Utah ... gal. .36 - —
Johnstown, Pa. ... gal. .36 - —
Lackawanna, N. Y. ... gal. .36 - —
Lone Star, Texas ... gal. .36 - —
Lorain, Ohio ... gal. .36 - —
Middletown, Ohio ... gal. .36 - —
Minnequa, Colo ... gal. .36 - —
Philadelphia district ... gal. .36 - —
Pittsburgh district ... gal. .36 - —
Sparrows Point, Md. ... gal. .36 - —
Syracuse, N. Y. ... gal. .36 - —
Terre Haute, Ind. ... gal. .36 - —
Youngstown, Ohio ... gal. .36 - —
Benzophenone, dms ... lb. 1.40 - 1.70
Benzotriazole, tech., dms., 1,000-lb. lots, works lb. 2.25 - —
Benzotrichloride, cbys., 1,000-lb. tots or more, frt. equald lb. .18 - —
smaller lots, frt. equald lb. .20 - —
Benzoyl chloride, cbys. dms., c.l., works, frt. equald lb. .22 - —
t.c.l., same basis lb. .23 - —
tank trucks, dlvd Metropolitan area lb. .21 - —
Peroxide, purif. fib. dms., 50 to 1,000-lb. lots, works lb. .98 - 1.08
Benzyl acetate, f.f.c., cns., dms lb. .60 - 1.00
Alcohol (see Alcohol, benzyl)
Benzoate, NF, f.f.c., 500 lb. dms. lb .62 - —
Chloride, tech., 13-gal. cbys., dms., c.l., works, frt. equald. lb. .23 - —
t.c.l., same basis lb. .24 - —
tank trucks, dlvd. Metropolitan area lb. .21 - —
A 2½c differential is quoted on benzyl chloride in 5-gal. cbys. in steel drms. prices were ½c lower
Cinnamate, cns ... lb 3.60 - 3.90
Formate, cns ... lb 1.80 - 2.10
Isoeugenol, cns ... lb. 9.85 - —
Propionate, bots ... lb 1.35 - 1.65
Salicylate, bots ... lb 1.60 - 1.85
Benzylidine acetone, bots ... lb. 1.75 - 1.80
Chloride (see Benzal chloride).
Berberine bisulfate, cns ... lb 35.00 - 36.25
Hydrochloride, bots ... lb 35.00 - 36.25
Betaine, anhyd., 10,000-lb. lots, frt. alld lb. 3.00 - —
Hydrochloride, 5,000-lb. lots, frt. alld lb. 1.60 - —
Monohydrate, 10,000-lb. lots, frt. alld lb. 2.60 - —
Betagammapicoline (see b-g-Picoline).
Betamethylnaphthalene (see b-Methylnaphthalene)
Betanaphthol (see b-Naphthol).
Betanaphthylamine (see b-Naphthylamine)
Betaphenylethylamine (see b-Phenylethylamine).
BHC (see Benzene hexachloride technical)
Biotin cryst., bots ... gram 10.00 - —
Biphenyl (see Diphenyl).
Bismuth chloride, tars ... lb 5.11 - —
Hydroxide, dms ... lb 4.65 - —
Metal, bxs., ton lots ... lb 2.25 - —
Nitrate, cryst., dms ... lb 2.10 - 2.17
Oxide, anhyd., dms ... lb 4.47 - 5.05
Oxychloride, dms ... lb 4.37 - 4.42
Phenolsulfonate, fib dms ... lb 5.22 - —
Subcarbonate, USP, dms. ... lb 3.20 - —
Subgallate, NF, fib. dms. ... lb 3.15 - —
Subiodide, fib. dms ... lb 5.37 - —
Subnitrate, NF, dms ... lb 2.65 - —
Subsalicylate, USP dms ... lb 3.50 - —
Bismuth-ammonium citrate, USP, powd jars lb 4.22 - —
Bisphenol-A, c.l., t.l., frt. alld lb. .29¾- —
t.c.l., same basis ... lb. 30¾- —
Black, acetylene, imp., bgs., c.l., duty and freight extra lb. .17 - —
cs., t.c.l., ex whse ... lb. .22½- .26
Ash (see Barium sulfide).
Bone, dms., t.c.l., frt. alld ... lb. .17 - .23¼
Pacific coast bone black prices 2c. per lb. higher.
Carbon, channel, pigment, high color, beads, ctns., c.l., works. lb. .72 - —
t.c.l. dlvd. or whse. lb. .78 - —
medium color, uncompressed, bgs., c.l., works. lb. .12 - —
t.c.l. dlvd or whse. lb. .19 - —
rubber, beads, bulk, c.l., works lb. .07 - —
bgs., c.l., works lb. .074 - —
t.c.l., works lb. .1225- —
furnace, fast extruding, bgs., c.l., works lb. .06 - —
ctns., t.c.l., whse lb. .10 - —
high abrasion, bulk, c.l., works. lb. .0750- —
bgs., c.l., works lb. .0790- —
t.c.l., dlvd. or whse lb. .122 - .125
high modulus, bgs., c.l., works. lb. .0550- —
ctns. t.c.l. wnse lb. .0950- —
semi-reinforcing, bgs., c.l., works lb. .045 - —
bgs. ctns. t.c.l., whse ... lb. .055 - —
Charcoal (see C).
Dyes (see Dyes).
Graphite (see G).
Iron oxide, pure, bgs., c.l., works. lb. .13¼- —
t.c.l., works ... lb. .13½- —
Lamp, bgs., c.l., works ... lb. .16 - .45
Mineral, bgs., works ... lb. .0160- .0675
Blackberry root bark, bls ... lb. .45 - —
Black haw root bark, bls ... lb. .63 - .65
tree bark, bls ... lb. .45 - .50
Blanc fixe, direct process, bgs., c.l., works ton 110.00 - —
t.c.l. works ton 120.00 - —
N. Y. whse ... ton 155.00 - —
Blood, dried, 16-16½% ammonia, unit-ton 5.25 - —
high-grade, unground, 16-17% ammonia, bgs., Chicago, unit-ton 5.00 - —
soluble, bgs., c.l. ... lb. .13 - .14
t.l. ... lb. .15 - .17
t.t.l. ... lb. .15½- .35½
Bloodroot, bls ... lb .48 - .50
Blue, alkali, dry, 250-lb. bbls., dlvd. N. of Tenn. and N. C., E. of Miss. R. including St. Paul, Minneapolis, Davenport, Rock Island, St. Louis lb 2.10 - —
toner, litho flushed, 125-lb. bbls., same basis lb 1.20 - —
Chinese, bbls., c.l., same basis lb. .50 - —
t.c.l., ton lots, same basis lb. .51 - —
smaller lots, same basis lb. .52 - —
Cobalt, genuine, bbls., same basis. lb 4.90 - —
Imitation (see Blue, ultramarine).
Dyes (see Dyes).
Iron (see Blue, Chinese, Milori, Potash, Prussian and Soda).
Methyl, violet toner, molybdated, PMA, bbls., same basis lb 2.75 - —
tungstated, PTMA, bbls., same basis lb. 4.00 - 4.15
Blue, milori, bbls., c.l., same basis, lb. .50 - .55
t.c.l., ton lots, same basis lb. .51 - .56
smaller lots, same basis lb. .52 - .57
Peacock, fugitive, 100% color strength, bbls. same basis. lb. .85 - —
Phthalocyanine, full strength, bbls., same basis lb. 3.45 - —
resinated, bbls., same basis lb. 3.00 - —
water dispersable, bbls., same basis lb. 1.54 - —
Potash, CP, bbls., same basis lb. .56 - —
Prussian, insoluble, soluble, bbls., c.l., same basis lb. .50 - —
t.c.l. ton lots, same basis lb. .51 - —
smaller lots, same basis lb. .52 - —
Soda, CP, bronze, bbls., c.l., same basis lb. .50 - —
t.c.l. ton lots, same basis, lb. .51 - —
smaller lots, same basis, lb. .52 - —
Ultramarine, cobalt type, dry or pulp, bbls., same basis lb. 39½- .35
jobbing types, bbls. same basis. lb. .19 - —
regular types, dry, bbls., same basis lb. .22½- .35
Victoria toner, molybdated, PMA, bbls lb 4.10 - —
tungstated, PTMA, bbls lb 5.35 - —
Blue dry colors, dlvd prices ½c higher Ala., Fla., Ga., La. (Shreveport 1½c.), Miss., N. C., S. C., Tenn., Tex. (El Paso 2c), Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph 1.6c higher. Pac. Coast, Denver, Pueblo, Salt Lake City, Wichita, frt. equalized with Chicago.
Blue vitriol (see Copper sulfate).
Bluestone (see Copper sulfate).
Bonemeal, steamed, works, E. ... ton 60.00 - —
Los Angeles ... ton 82.50 - —
Bone phosphate, defluorinated (see D) of lime (see Calcium phosphate, tribasic), precipitated (see Calcium phosphate tribasic, NF precip.)
Borax, tech., anhyd., 99%, bgs., c.l., works ton 80.50 - —
ton lots ex whse, N. Y. or Chi ... ton 132.25 - —
smaller lots, works ... ton 137.25 - —
bulk, c.l., works ... ton 71.50 - —
cryst., 99½%, bgs., c.l., works. ton 69.25 - —
ton lots ex whse, N. Y. or Chi ... ton 121.00 - —
smaller lots, same basis. ton 126.00 - —
gran., decahydrate, 99½%, bgs., c.l., works. ton 43.25 - —
ton lots ex whse, N. Y Chi ... ton 95.00 - —
smaller lots, same basis. ton 100.00 - —
bulk, c.l., works ... ton 36.75 - —
Pentahydrate, 99%, bgs., c.l., works ton 57.75 - —
ton lots ex whse N. Y. ton 109.50 - —
smaller lots, same basis. ton 114.50 - —
bulk, c.l., works ... ton 51.50 - —
powd., bgs., c.l., works. ton 48.25 - —
ton lots ex whse N. Y. or Chi ... ton 100.00 - —
smaller lots, same basis. ton 105.00 - —
USP borax $15 per ton higher
Bordeaux mixture, bgs., c.l., works, frt. alld. or nearest whse. pt. lb. .18 - .24
t.c.l. same basis ... lb. .19 - .26
Borneol, cns ... lb 2.50 - 4.75
Boron trifluoride gas, cyls., truckload, works lb. .62 - —
t.t.l. works ... lb. .70 - —
Brazilwood extract (see Hypernic extract).
Brimstone (see Sulfur).
Bromine, purif., cs., c.l., t.l., dlvd. E. of Rockies lb. .32 - —
t.c.l., same basis lb. .34 - .39
ret. dms., c.l., t.l. dlvd E of Rockies lb. .31 - —
t.c.l., same basis ... lb. .31 - .33
tanks, same basis ... lb. .22½- —
Bromochloromethane, dms., c.l., frt. equald lb. .48 - —
t.c.l., same basis lb. .50 - —
Bromoform, pharmaceutical grade, bots lb 1.62 - 2.60
cbys. ... lb 1.52 - —
Bromstyrol, bots ... lb. 5.40 - 5.70
Bronze powder, aluminum (see A).
Brown iron oxide, pure, bgs., c.l., works lb. .14¼- —
t.c.l. works ... lb. .14½- —
Oxide, metallic, bgs., works lb. .04 - —
Sienna, burnt, paper bgs., c.l., works lb. .06¼- .17½
t.c.l., works ... lb. .06½- .17½
raw, paper bgs., c.l., works lb. .06¼- .16¼
t.c.l., works ... lb. .06½- .16½
Umber, burnt, American, c.l., works. lb. .07 - .07¾
t.c.l., works ... lb. .07¼- .08
Turkey type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N. Y. lb. .07¾- —
raw, American, bgs., works lb. .07½- .08¼
Turkey-type, bgs. works lb. .06¾- .07
Vandyke, bbls., works ... lb. .09½- .12
Brucine, cns., 100-oz. lots ... oz. .20 - .25
Sulfate, NF cns., 100-oz. lots oz. .15 - .20
Buchu leaves, bls ... lb. 1.30 - —
Butadiene, refd., cyls., c.l. refy lb. .21 - —
t.c.l. refy ... lb. .22 - —
tanks refy ... lb .15 - —
Butane, indust., tanks group 3 gal. 04½- —
n-Butyl acetate, ferment., dms., c.l., frt. alld lb. .16½- —
t.c.l., same basis ... lb. .17½- —
tanks, same basis ... lb. .14 - —
syn., dms., c.l., dlvd. E ... lb. .16½- —
t.c.l., same basis ... lb. .17½- —
tanks, same basis ... lb. .14 - —
sec-Butyl acetate, syn. dms., c.l., dlvd. E lb. .13½- —
t.c.l., same basis ... lb. .14¼- —
tanks, same basis ... lb. .11¾- —
Butyl alcohol (see Alcohol, n-Butyl).
Aldehyde (see Butyraldehyde).
Chloride, dms., c.l., works ... lb. .37½- —
t.c.l., works ... lb. .38¼- —
Ether, dms., c.l. works ... lb. .33 - —
t.c.l., works ... lb. .33¾- —
tanks, works ... lb. .31 - —
Lactate, dms., c.l., frt. alld. E. of Rockies lb. .42½- —
t.c.l., same basis ... lb. .43½- —
tanks, same basis ... lb. .40 - —
Laurate, dms., works ... lb. .39 - —
Methacrylate, dms., c.l., t.l., works, lb. .55 - —
t.c.l., works ... lb. .55½- —
Oleate, refd., dms., t.c.l., works. lb. .32 - —
Phenylacetate, dms ... lb. 4.50 - 4.60
Phthalate (se Dibutyl phthalate).
Stearate, dms., c.l., frt. equald, t.c.l., same basis ... lb. .26½- —
Butylamine (see mono-, di- and tri-).
6-tert-Butyl-m-cresol, dms., c.l., works lb. .25 - —
t.c.l., works ... lb. .55 - —
tanks, works ... lb. .56 - —
tanks, works ... lb. .54 - —

Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p-cresol).
p-tert-Butylphenol, bgs., c.l., works lb. .27½ - —
l.c.l. lb. .28½ - —
Butyraldehyde, dms., c.l., dlvd lb. .22 - —
l.c.l., dlvd lb. .23 - —
tanks, dlvd lb. 19½ - —
Butyric ether (see Ethyl butyrate).

C

Cacao butter (see Cocoa butter).
Cadmium iodide 25-lb fib dms lb 6.75 - 7.00
Metal ingots or sticks, cs., dlvd. lb 1.70 - —
Caffeine, USP, nat., cryst., anhyd., dms., 100-lb lots or more lb 3.00 - —
hydrous, dms., 100-lb lots or more lb 2.80 - —
syn., cryst., anhyd., dms., 100-lb. lots or more lb 3.00 - —
hydrous, 100-lb lots or more lb 2.80 - —
Citrated USP, dms., 100-lb lots or more in 2.70 - —
Calamine, USP, dms lb. .34 - —
Calciferol, cryst., vials, 1-kilo lots, works gram .60 - —
25 to 100 gram lots works, gram .65 - —
in edible oil (see Viosterol)
Calcium p-aminosalicylate, fib, dms., 100 lbs or more, frt. adjusted, lb 4.00 - —
Arsenate dealers bgs, c.l., frt alld lb .09 - .09½
Bromide, NF, 100 lbs or more lb .92 - —
Carbide, standard generator size, dms., c.l., dlvd ton.134.40 - —
Carbonate, nat., dry-grd, air floated, 325 mesh, bgs., c.l., works ton.10.50 - —
chalk, precipitated, 325 mesh bgs., c.l., works ton.32.00 -34.00
l.c.l., same basis lb. .10 - .10½
water-grd, ½ to 10 microns, bgs., c.l., works ton.36.00 - —
10 to 20 microns, bgs. c.l., works ton.17.00 -18.00
precip, dense bgs, c.l. works ton.32.50 - —
l.c.l. works ton.42.50 - —
medium, bgs., c.l. works ton.38.00 - —
l.c.l. works ton.48.00 - —
surface treated bgs., c.l. works ton.37.50 - —
l.c.l. works ton.47.50 - —
ultrafine, bgs., c.l., works.ton.110.00 -160.00
l.c.l., works ton.120.00 -175.00
Chloride, cryst, purif., dms lb .27 - —
flake 77-80%, paper bgs., c.l. works, frt equald ton.29.00 - —
liquor, 40%, tanks, frt. equald.ton.12.35 - —
pellets bgs, c.l., works ton.35.40 - —
powd., bgs., c.l., works ton.35.00 - —
solid 73-75% dms., c.l., frt. equald ton.97.50 - —
l.c.l. works frt. equald. ton.34.00 -71.00
USP gran, dms lb .32 - —
Chromate, bgs., frt. equald lb. .29½ - .30
Cyanide, dms, c.l., dlvd, E. of Rockies lb. .20 - —
l.c.l., same basis lb. .24 - .55
Cyclamate, 100-lb. fib, dms... lb. 2.95 - —
Gluconate, AA, bbls., dms... lb. .74 - .76
USP bbls., dms lb .67 - .69
Hydride, dms., works lb 2.15 - 3.00
Hypochlorite, high test, 45-lb. cs., dlvd, E. of Rockies cs.22.95 -25.10
100-lb. dms., same basis dm.30.80 -34.50
Hypophosphite, dms., ton lots or less lb .90 - .93
Iodide, tars lb 4.52 - —
Lactate NF dms., 10,000-lb lots or more works lb .36 - .40
Mandelate, USP dms, works lb. 2.10 - 2.25
smaller lots works lb .41 - .48
Naphthenate liq, 4% Ca., dms., frt equald lb. .27½ - —
Nitrate, fertilizer grade, bgs, c.l., Los Angeles ton 46.00 - —
tech., 5-dm lots, works lb. .13 - —
Pantothenate, dms., bots., frt. adjusted gram .045 - —
Para aminosalicylate (see Calcium p-Aminosalicylate)
Phenolsulfonate dms lb .70 - —
Phosphate, dibasic, USP, bgs., c.l., frt. equald. 100 lbs. 7.75 - —
t.c.l. frt. equald 100 lbs 8.50 - —
feed grade, 18½%P bgs., c.l., t.l., frt. equald ton.79.55 -83.25
t.c.l., frt. equald ton.89.55 -93.25
21% P, bgs., c.l. t.l., frt equald ton.94.50 —
t.c.l., frt. equald ton.99.50 -104.50
monobasic, bgs., 10,000-lb lots, frt. equald 100 lbs 6.90 - —
smaller lots same basis, 100 lbs 7.40 - —
tribasic, NF precip., bgs., c.l., works, frt. equald 100 lbs. 8.75 - —
t.c.l. frt. equald 100 lbs 9.00 - —
Phytate, bgs., works lb. .50 - —
Resinate precip, dms, frt. alld., works lb. .30½ - —
Silicate, hydrated, bgs, c.l., works, lb. .06 - —
t.c.l., works lb. .06½ - —
paint grade (see Wollastonite)
Stearate ctns., c.l lb. .37 - —
t.c.l lb. .38 - .42
Sulfate (see Gypsum)
Calomel, USP, powd., dms lb. 3.42 - —
Camphene 46 m.p. dms., incl., c.l., works lb. .15 - —
t.c.l. same basis lb. .16½ - —
tanks, same basis lb. .12½ - —
Chlorinated, 67-69% (see Toxaphene).
Camphor monobromated NF, dms. kgs lb. 3.50 - —
nat USP powd. cs. 100-lb lots lb. .60 - .65
tablets, 1-oz., ½-oz cs lb. .85 - .90
syn., tech., 1 bbls or more lb. .48 - —
USP, gran, powd, bbls., 2,000-lb. lots lb. .59 - —
1,000-lb lots lb. .60 - —
smaller lots lb. .61 - —
tablets, tins, 2,000-lb. lots lb. .90 - —
1,000-lb lots lb. .91 - —
smaller lots lb .92 - —
Canada balsam (see Fir balsam)
Cantharides, Chinese, cs lb 2.00 - 2.05
powd., bxs lb 2.25 - 2.30
Russian, bgs lb 4.00 - 4.05
powd. bxs lb 4.35 - 4.40
Capsicum (see Pepper red).
Oleoresin NF from domestic pepper, dms lb 4.50 - 5.25
from African pepper, dms lb 4.35 - 5.00
Caraway seed, Dutch, bgs. lb. .17 - —
Carbazole 97% bbls. ton lots, works lb 1.05 - —
Carbon black (see Black, Carbon).
Dioxide, indust., wholesale, bulk, dlvd. Metropolitan area ton.73.00 -113.00
cyls., same basis lb. .08 - .09
solid, same basis lb. .035 - .040
Disulfide, 55-gal. dms., c.l., works, frt. equald. to competitive points lb. .07 - —
t.c.l. same basis lb. .08½ - .09
5-gal dms, 30 dms to c.l., same basis lb. .13 - —
less than 30 dms lb. .16 - —
tanks, dlvd. lb. .0545 - —
Carbon tetrachloride, CP, consumers, dms., l.c.l., frt. alld. lb. .12¼ - .14½
tech., consumers, dms., c.l., frt. alld. lb. .11¼ - —
l.c.l., frt. alld. lb. .13½ - —
tanks, frt. alld. lb. .10 - —
Carboxymethyl cellulose (see CMC).
Carbromal, NF, dms., 100-lb. lots, works lb. 4.00 - 4.25
smaller lots, works lb. 4.10 - 4.75
Cardamom seed, bleached, "A" lb 3.20 - —
"B" lb 3.10 - —
decorticated, Ceylon, cs lb. 3.00 - —
Guatemalan, cs lb. 3.00 - —
green, Alleppey, bgs lb. 2.15 - —
Ceylon, bgs lb. 2.15 - —
Carmine, No. 40, NF, bulk, 100-lb. lots or more, dlvd lb.16.80 - —
smaller lots, dlvd lb.16.90 -17.30
Carotene, tech., 1,350,000 A units per gram, tins, 5-10 kilo lots, dlvd gram .295 - —
in carrot oil, 5,000,000 to 8,000,000 A units per lb., dms., works million units. .12 - —
microcrystalline in oil, 400,000 A units per gram dms., dlvd. million units. .21 - —
b-Carotene, pure, crystalline, 1,600,000 A units to 1,670,000 per gram., cns gram. .35 - —
in vegetable oil, 400,000 A units per gram, cns. gram. .084 —
Carvol, bots lb 4.50 8.00
Cascara sagrada bark, bulk lb. .33 - —
Casein, dom. acid precip., standard, bgs., 10,000-lb lots or more, shipt point lb. .32 Nom.
premium bgs., 10,000-lb. lots or more, shipt. point lb. .38 Nom.
Casein, imp., acid-precip., grd., Argentine, bgs., c.l., duty paid lb. .23¼ - .24
New Zealand, duty paid lb. .24 - .25
Cashewnut shell liquid, treated, dms., c.l., Newark, N. J lb. .22 - —
ton lots, same basis lb. .23 - —
dm. lots, same basis lb .25 - —
Cassia, Batavia, "A," bls. lb. .22 - —
"B" lb. .21 - —
"C" lb. .20 - —
Corinje "A" lb. .20½ - —
"B" lb. .19½ - —
"C" lb. .18 - —
Castor beans, bgs., f.o.b. Brazil ton.180.00 -185.00
Oil (see Oil, castor)
Pomace, bgs., c.l., works ton.33.00 -40.00
Castoreum, nat., cns lb 5.25 -30.00
syn., cns lb 9.00 —
Catechol, CP, cryst., fib. dms., works lb 2.17½ - —
resub., dms., works lb 4.29½ - —
Catnip leaves, Southern, bls lb. .75 - —
Celery seed, French, bgs lb. .41 - —
Indian, bgs. lb. .21 - —
Cellulose acetate, flake, powd., ctns., bgs. 100-lb lots or more, dlvd E lb. .33 - .46
Acetate-butyrate, powd., 17% butyryl content, bgs., dlvd. E lb. .545 - .555
27% butyryl content, bgs., dlvd. E lb. .595 - .605
38% butyryl content, bgs., dlvd. E lb. .545 - .555
Cellulose acetate-butyrate, 50% butyryl content, bgs., dlvd. E lb. .585 - .595
half-second, bgs. dlvd E lb 543 - .555
Scrap (see Pyroxylin scrap).
Cerium chloride, dms., dlvd. lb. 35 - —
Hydrate 74% CeO_2, fib. dms., 100-lb lots or more lb 1.44 - —
77% CeO_2, fib dms., 100-lb. lots or more lb 1.74 - —
Oxalate, NF, bgs., works lb. 1.00 - —
Oxide, optical grade, bgs., 50-lb lots or more, dlvd lb 1.85 - 1.98
smaller lots, dlvd lb 2.03 - 2.23
Chalk (see Calcium carbonate).
Chamomile flowers, Hungarian style, cs lb. .85 - .95
Roman, cs. lb. 2.30 - 2.75
Charcoal, activated, NF, fib. dms., c.l., works lb .25 - .32
5-ton lots, works lb .29½ - .32½
smaller lots works lb .27 - .50
Bone (see Black, bone).
Hardwood, bulk, lump, c.l., f.o.b. plant ton.55.00 - —
briquets, bulk, c.l., f.o.b. plant ton.75.00 - 80.00
5 lb. paper bags, c.l., same basis ton.108.00 - —
10 lb. paper bags, c.l., same basis ton. 95.00 - 98.00
25 lb. paper bags, c.l., same basis ton. 82.00 - 88.00
40-lb paper bgs., c.l., same basis ton.81.00 - 85.00

by cooperative research **QUALITY CHEMICALS**

OVER TWENTY YEARS EXPERIENCE IN RESEARCH and production of bromine, magnesia, chloride and calcium chemicals, and recent expansions in capacities and improvements in processes provide facilities for customers requiring basic supplies of industrial, pharmaceutical, agricultural, and rare earths chemicals. Inquire about our program of cooperative research on your problems.

Aluminum Bromide Anhydrous. Technical grade, dark colored product suitable for most manufacturing uses. Highly reactive catalyst, many uses in organic synthesis especially in isomerization, bromination and halogen exchange reactions. Available as solid or lump.

Ammonium Bromide N.F. X. A white powder, very pure, complies with all the requirements of the National Formulary. Commonly used as sedative in pharmaceutical preparations. Also in photography, textile finishing and as fire retardant for fabrics.

Bromine, Dry. A powerful oxidizing and brominating agent used in manufacture of dyes, pharmaceuticals. Many applications in organic synthesis. Low moisture content of 30 ppm permits use in nickel and monel equipment. Very irritating to skin, eyes.

Chlorobromomethane "CB". A specially prepared pure, noncorrosive fire extinguishing fluid. Now finding increased use in factories, warehouses, homes. Clear, colorless, 2 degrees C. boiling range; complies with current military specifications. Used as solvent and in organic synthesis.

Cyclopentyl Bromide. A clear, colorless liquid with an aromatic odor. Specially prepared for use in organic synthesis, particularly for introduction of the cyclopentyl radical. Many potential uses in manufacture of pharmaceuticals. Purified grade, 2 degrees C. boiling range.

1, 3-Dibromo-5, 5-dimethylhydantoin. $C_5H_6Br_2O_2N_2$. A bromine carrier and oxidizing agent. Useful in synthesis for side chain bromination and bromination of allylic carbon atoms. A fine stable powder with a minimum active bromine content of 54%.

β - Diethylaminoethyl Chloride Hydrochloride. $(CH_3CH_2)_2NCH_2CH_2Cl \cdot HCl$ (DEC). A granular solid. Specially suited for use as an intermediate in organic chemical manufacture, including antispasmodic agents and other pharmaceuticals.

β - Dimethylaminoethyl Chloride Hydrochloride. (DMC). $(CH_3)_2NCH_2CH_2Cl \cdot HCl$. A granular solid. Specially prepared for use in manufacture of antihistaminics and other pharmaceuticals. Other potential uses in organic synthesis. Relatively nontoxic in hydrochloride form.

β - Dimethylaminoisopropyl Chloride Hydrochloride. $(CH_3)_2NCH_2CHClCH_3 \cdot HCl$. (DMIC). An organic intermediate similar in appearance and properties to DEC and DMC. Specially prepared for manufacture of analgesics and other pharmaceuticals. Other potential uses in organic synthesis.

γ - Diethylaminopropyl Chloride Hydrochloride. $(C_2H_5)_2NCH_2CH_2CH_2 \cdot HCl$ (DEPC). A light tan to white crystalline hygroscopic solid. Used in pharmaceutical manufacture, especially for introduction of the diethylaminopropyl radical.

γ - Dimethylaminopropyl Chloride Hydrochloride. $(CH_3)_2NCH_2CH_2CH_2Cl \cdot HCl$ (DMPC). A white powder of singular purity. A versatile intermediate for pharmaceutical and organic syntheses, available exclusively from Michigan Chemical.

Ethyl Bromide. A clear, colorless, volatile liquid, specially prepared for use as an intermediate in organic synthesis. Practically free from impurities; has a narrow boiling range. Used in manufacture of dyes, perfumes and pharmaceuticals.

Hydrobromic Acid. A clear, colorless or light amber colored fuming liquid. Used for manufacture of inorganic metal bromides, aliphatic bromides, pharmaceuticals, dyes and intermediates. 48% acid and other strengths.

Magnesium Carbonate, Basic, Technical. Fine, uniform white powder, 325 mesh, bulk density 5.5 pounds per cubic foot. Very reactive. Used for rubber compounding, printing inks, paints, varnishes. Anticaking agent for table salt; conditioning or bulking material for powder formulations.

Magnesium Hydroxide. Fine, white powder, typical assay 96.3%, low in moisture, iron, alumina, silica. Technical and NF X grades. Special bulk densities available in NF grade. Convenient material for manufacture of light magnesias, other magnesium compounds.

Magnesium Oxides. Six principal grades of Michigan magnesium oxide with wide range of desirable physical and chemical characteristics covering principal uses of MgO, including rubber compounding, rayon manufacture, ceramics, glass, refractories, insulation.

Methyl Bromide. A heavy, colorless liquid, vaporizing at 40 degrees F., nonflammable and poisonous. Highly penetrating and insecticidally effective fumigant. Also used in organic synthesis for the introduction of the methyl group, especially in preparation of certain pharmaceutical chemicals.

Monobromobenzene. Clear, colorless, heavy liquid. Specially prepared for use as an intermediate in preparation of organic compounds. For introduction of the phenyl radical and in Grignard-type reactions. A pure material with a 2 degrees C. boiling range; specific gravity 1.495.

Phosphorous Tribromide. Brominating agent. A liquid, boiling point 173 degrees C., which fumes in contact with moist air. Used in synthetic work to convert alcohols to bromides, and acids to acyl bromides. Specially useful in preparation of bromides from alcohols without rearrangement.

Potassium Bromate, Granular. A fine, white, granular or crystalline material 99.5% pure. Decomposes at 370 degrees C. with evolution of oxygen. Strong oxidizing agent, used as an analytical reagent. Neutralizer in permanent wave compounds.

Potassium Bromate, Powder. A fine uniform powder with same properties as Granular. Available with added magnesium carbonate conditioning agent when specified. Suitable for use as an aging additive for flour.

Potassium Bromide, N.F. X. Pure, white granular powder. Low in chloride, passes all N.F. requirements. Widely used in the preparation of photographic emulsions, and in lithography. One of the most important sedatives. Available in several granulations.

Sodium Bromide, U.S.P. XV. Pure, white crystaline powder or granules. Passes all requirements of the U.S. Pharmacopoeia. High assay; low in chloride. An important nerve sedative. Used in manufacture of other bromides. Contains about 77.5% bromine.

Tetrabromophthalic Anhydride. $C_8Br_4O_3$. High molecular weight phthalic anhydride having a bromine content of 66%. Will undergo most of the reactions of phthalic anhydride. Pale yellow crystalline compound melting point minimum 265°C.

Trimethylene Chlorobromide. Clear, colorless liquid used in manufacture of anesthetic grade cyclopropane. Greater reactivity of bromine atom makes trimethylene chlorobromide specially useful also in preparation of gamma chloro compounds. Boiling range 2 degrees C. maximum.

Zinc Bromide Solution, Optical Grade. Clear, colorless solution, about 80% $ZnBr_2$. Used in laboratories dealing with radioactive chemicals as a radiation viewing shield; the most satisfactory material. Meets all chemical and optical specifications of Argonne National Laboratory.

Also Manufacturer of Rare Earth Compounds and Metals, Pestmaster Insecticides, Pestmaster* Methyl Bromide Fumigants and Dustmaster* Road Chemicals.*

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BASIC MANUFACTURER OF INDUSTRIAL, PHARMACEUTICAL AND AGRICULTURAL CHEMICALS

Charcoal—Dimethyl Sebacate

Charcoal pinewood, gran., bgs., c.l., works, South ton 57.00 - —
l.c.l., works, South ton 57.00 -67.00
lump, bgs., c.l., works, South ton 53.50 —
l.c.l., works, South ton 56.50 -71.00
bulk, c.l., works, South ton 38.00 —
t.l., works, South ton 41.00 - —

Chestnut extract, Italian, solid, 60% tannin, bgs., exdock, plus duty lb. .09½- —
powd., 70% tannin, bgs., exdock, plus duty lb. .10⅝- —

Chloral, tech., 94% min., dms., c.l., works lb. .23 - —
l.c.l., works lb. .24 - —
tanks, multiple units, 5 cars, works lb. .21 —

Hydrate, USP, 40 lb. jars, 1,000-lb. lots lb 1.00 - —
500-lb. lots lb 1.03 —
100-lb. lots or less lb 1.05 —

Chloramine T, NF, bbls., works lb. .75 1.00

Chlordan, agricultural, dms., c.l., frt alld lb. .65 —
l.c.l. 5,000 to 10,000-lb. lots, frt alld lb. .66 —
clarif., dms., c.l., frt alld lb. .69 —
l.c.l. 5,000 to 10,000-lb. lots, frt alld lb. .70 —

Chlorinated paraffin, 42%, dms., c.l., frt. alld lb. .16¼- —
l.c.l. same basis lb. .17¼- —
70%, dms., c.l., same basis lb. .18¾- —
l.c.l., same basis lb. .19¾- —

Rubber, 5, 10, 20 cps., ctns., c.l., works lb. .55 - —
l.c.l., works lb. .56 - —
125, 1,000 cps., ctns., c.l., works, lb. .65 —
l.c.l., works lb. .66 - —

Chlorine, liq., cyls., c.l., works, frt. equald lb. .10¼- —
l.c.l. Metropolitan area lb. .11¾- .13
tanks, single units, works, frt. equald 100 lbs. 3.15 - —
multiple units, 5 cars, works, frt. equald 100 lbs. 4.05 - —
3 cars, same basis 100 lbs. 4.25 - —
2 cars, same basis 100 lbs. 5.25 - —
1 car, same basis 100 lbs. 7.25 - —

4-Chloro-2-aminotoluene, fused, bbls. lb. 1.45 - —

m-Chloroaniline, dms., min. 10,000 lbs or over, frt. alld lb. .75 - —
less than 10,000 lbs., same basis lb. .80 - —
tanks, same basis lb. .73 - —

o-Chloroaniline, dms., c.l., frt. alld. lb. .65 - —
l.c.l., same basis lb. .67 - —
tanks, same basis lb. .63 - —

p-Chloroaniline, dms., c.l., frt. alld. lb. .77 - —
l.c.l., same basis lb. .79 - —

o-Chlorobenzaldehyde, dms., t.l., works lb. 1.05 - —
l.t.l., works lb. 1.20 - —

p-Chlorobenzaldehyde, dms., c.l., works lb. 1.95 - —

Chloroform, tech., dms., c.l., dlvd. E lb. .18 - —
l.c.l., same basis lb. .19 - —
tanks, same basis lb. .17 - —
USP, dms lb. .30 - —

2-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis lb. .81 - —
powd., dlvd. E., 100% basis lb. .86 - —

4-Chloro-2-nitroaniline, powd., dlvd. E lb. .80 - —

o-Chlorophenol, dms., c.l., frt. equald. lb. .37 - —
l.c.l., same basis lb. .38 - —

p-Chlorophenol, dms., c.l., frt. equald. lb. .37 - —
l.c.l., same basis lb. .38 - —

Chloropicrin, comi., bots lb. 1.50 - —
cyls., 180 lbs., frt. alld lb. .95 - —
100 lbs., same basis lb. .97 - —
25 lbs., same basis lb. 1.22 - —

Choline bitartrate, fib. dms., frt. adjusted lb. 1.25 - 1.35

Chloride, fib. dms., frt. adjusted. lb. 1.25 - 1.35

Dihydrogen citrate, fib. dms., frt. adjusted lb. 1.25 - 1.35

Chromium acetate, soln., 7½%, bbls., works lb. .09½- —
cbys., works lb. .11¼- —

Fluoride, bbls., works lb. .51 .52
Green (see Green, chrome).
Oxide (see Green chromium oxide).
Trioxide, NF, bots lb. .82 .89
Yellow (see Yellow chrome).

Cinchona bark, NF, red, broken, bgs lb. .35 - .40
yellow, broken, bgs lb. .35 - .40

Cinnamic aldehyde, dms. lb. .95 - 1.25
Cinnamon, Ceylon, No. 2, bgs. lb. .98 - —
"0000," bgs., afloat lb. 1.08 - —

Citral, bots., cns lb. 4.90 5.90

Citronellal, bots., dms. lb. 2.85 - 3.50

Citronellol, bots., dms. lb. 4.30 - 4.60

Civet, artif., bots lb. 13.75 -15.00
nat., bots oz. 8.50 -15.00

Clay, ball, dom., airfloated, bgs., c.l., Tenn ton. 19 50 - —
crushed, shed moisture, bulk, c.l., Tenn ton. 10 00 - —
purif., bgs., c.l., Tenn ton. 20 50 - —
imp., airfloated, bgs., c.l., Atl. port long-ton. 42.00 -45.00
lump, bulk Atl. port long-ton. 27.00 -30.20
China, dom., dry-grd., airfloat, 99% 325 mesh, bgs., c.l., Georgia, works ton. 10.00 - —
l.c.l., Georgia, works ton. 15 50 - —
300 mesh, bgs., c.l., Georgia, works ton. 13 50 -14.50
l.c.l., same basis ton. 35.00 -36.00
imp., white, lump, bulk, c.l., ex-dock, Phila., Portland, Me., gross ton. 20.00 -35.00
powd., bgs., c.l., ex dock net ton 50.00 —
l.c.l., ex whse net ton 60.00 -65.00

Clove, Madagascar, bgs. lb. .42½- —
Zanzibar, bgs. lb. .47 - —

CMC, crude, 96%, low or medium, vis., bgs., or fib. dms., 23,000 lbs., dlvd. E., 100% basis lb. .39½- .41
less than 23,000 lbs., dlvd. E., 100% basis lb. .41½- .43
65%, low or medium vis., bgs., or fib. dms., c.l., dlvd. E., 100% basis lb. .39½- .41
l.c.l., dlvd. E., 100% basis lb. 41½- .43
purif., high vis. (see Gum Cellulose).
standard, low or medium vis., bgs., 23,000 lbs. or over, works, frt. alld lb. .53 - —
smaller lots, same basis lb. .57 - —

CMC prices W. of the Rockies are 2c. per lb. lower and are on a works basis.

Coaltar, crude, resale for soins., dms., c.l., ex-whse. gal. .30½- —
l.c.l., ex-whse. gal. .33½- —
tanks, ex works gal. .154 - .165
refd., resale, industrial, dms., c.l., ex-whse. gal. .30½- .35
l.c.l., ex-whse. gal. .33½- .39
tanks, works gal. .16½- .20½

Cobalt acetate, 23.7%, dms., dlvd. lb. 1.20 - —

Carbonate, 46% powd., bgs., dlvd. lb. 1.85 - —

Chloride, 24.2% Co., dms., dlvd. lb. 1.20 - —

Hydrate, 60-61% Co., dms., dlvd lb. 2.62 - —

Linoleate, fused, 8½% Co., dms. lb. .75¾- —
liq., 6% Co., dms lb. .61 - —

Metal, 97-99%, kgs., ex whse lb. 2.35 - —

Naphtenate, liq., 6% Co., dms., dlvd lb. .48¼- —

Nitrate, 20.1% Co., bbls., dlvd. lb. 1.00 - —

Oxide, black, 72½-73½% Co., kgs. lb. 1.78 - —
70-71% Co., kgs. lb. 1.73 - —

Phosphate, powd., 32.1% Co., kgs., dlvd lb. 1.69 - —

Resinate, fused, 3% Co., dms. dlvd lb. .29¾- —

Sulfate cryst., 21% Co., dms., dlvd lb. .79 - —
monohydrated, 33% Co., dms., dlvd lb. 1.32 - —

Tallate, 6% Co., dms., dlvd lb. .43¾- —

Cocaine, USP, cns., 100-oz. lots oz. 17.80 - —
Hydrochloride, cns., 100-oz. lots. oz. 13.75 - —

Cocilana bark, bls. lb. .25 - —

Cocoa butter, bgs. lb. .69 - .72

Codeine, NF, cns. 100-oz. lots oz. 13.25 - —
Hydrochloride, cns., 100-oz. lots. oz. 11 75 - —
Phosphate, USP, cns., 100-oz. lots. oz. 10 25 - —
Sulfate, USP, cns., 100-oz. lots oz. 10.75 - —

Codliver oil (see Oil, codliver).

Cohosh root, black, bls lb. .20 - .22
blue, bls lb 20 .22

Colchicine, USP, bots., cns. oz. 29.00 -35.50

Colchicum root, bls. lb. .35 - —
seed, bgs. lb. .60 - —

Collodion, USP, dms. lb. .32½- —
flexible, dms. lb. .34 - —

Colocynth, pulp, bls. lb. .55 - —

Colombo root, bls. lb. .15 - .16

Condurango bark, bales. lb. .26 - —

Copaiba balsam, cns., dms. lb. .85 - —

Copper acetate, bbls., c.l., works lb. .53 - —
l.c.l., works lb. .54 - —
Carbonate, 55% bgs., c.l., works. lb. .35¾- —
l.c.l., works lb. .37¾- —
Chloride, cupric, anhyd., dms., works lb. .45¼- .45¾
cryst., dihydrate dms., works. lb. .30¾- .31¼
dried, dms., works lb. .39 - .39½
cuprous, dms., works lb. .4540- .4890
Cyanide, tech., bbls., 20,000-lb. lots or more lb. .77½- —
1,000-lb. lots or more lb. .78½- —
smaller lots lb. .80½- —
Gluconate, dms. lb. 3.15 3.35
Hydrate, dms., c.l., frt. alld. E. of Miss. lb. .52½- —
l.c.l., same basis lb. .53 - —
Metal, electrolytic, dlvd., Valley basis lb. .36 - —
Naphthenate, liq., 8% Cu. dms., frt. alld lb. .24½- —
Nitrate tech., cryst., bbls., works. lb. .33¼- —
Oleate, solid, 9% Cn., dms., works. lb. .45 - —
Oxide, black, bbls., 100-2,000-lb. lots, works lb. .48½- .50½
red, 97%, USN Type I, bbls., 100-5,000 lb. lots lb. .64½- —
90%, USN Type II, bbls., 100-5,000 lots or more, works. lb. .62½- —
Oxychloride, dms., c.l., works lb. .53 - —
l.c.l., works lb. .53½- .63½
Quinolinolate, fib. dms lb. 4.25 - 4.50
Resinate, precip., dms., frt. alld. lb. .31½- —
Sulfate, CP, gran., dms., works. lb. .2080- —
cryst., 99%, bgs., c.l., works. 100 lbs. 13.90 - —
l.c.l., same basis 100 lbs. 14.90 -16.90
monohydrated, 35%, dms., c.l., works 100 lbs. 23.75 - —
l.c.l., works 100 lbs. 24.50 - —
tribasic, dealers, bgs., c.l. works, frt. equald 100 lbs. 30.00 - —
l.c.l., same basis 100 lbs. 31.00 -34.00
Undecylenate, dms lb 2.00 3.00

Copra, Atlantic, Gulf ports, c.i.f. ton. 163.00 - —
Pacific ports, c.i.f. ton. 158.00 - —

Coriander seed, Moroccan, bgs. lb. .12 - —
Roumanian, bgs lb. .09 - .09½
Yugoslavian, bgs. lb. .08½- —

Corn sugar, tanners, chipped, paper bgs., c.l., 60,000 lbs. min. 100 lbs. 7.26 - —
l.c.l. 100 lbs. 7.51 - —
Syrup, 42°, non-ret., dms., c.l. 100 lbs. 7.34 - —
l.c.l. 100 lbs. 7.49 - —

Corrosive sublimate (see Mercuric chloride).

Cortisone acetate, NNR, bulk gram 3.50 3.55

Cottonseed meal, 41% bgs., Memphis ton. 57.00 -58.00

Cramp bark, NF, bls lb. .85 .90

Coumarin, NF, cryst., dms lb. 3.60 - —

Cream of tartar (see Potassium bitartrate).

Creosote carbonate, NF, bots, cbys. lb. 3.05 - 3.26

Coaltar, crude, tanks, works, frt. adjusted gal. .22 —
soln., 80%, tanks, works gal. .2068- —
refd., dms., c.l., works gal. .42 - .44
l.c.l., same basis gal. .53 - .55
tanks, same basis gal. .33 - .35

Wood, beachwood, cbys., dms lb. 1.60 - 1.65
hardwood, NF, bots., cbys lb 1.30 1.35
pinewood, dms., c.l., incl. lb. .0561 - —
l.c.l., incl. lb. .0634- —
N. Y. whse lb. .0745- —
tanks, works lb. .0460- —

Cresol, tech., 50% below 204°C., dry above 207°C, wide distillation range, non-ret., dms., c.l., frt. equald lb. .1625- —
l.c.l., same basis lb. .1675- —
tanks, same basis lb. .145 - —

USP, non-ret., dms., c.l., same basis lb. .1775- —
l.c.l., same basis lb. .1825- —
tanks, same basis lb. .160 - —

m-Cresol, 95-98%, dms., c.l., works. lb. .60 - —
l.c.l., works lb. .61 - —

m-p-Cresol, 5-95%, 3°C., dms., c.l., frt. equald lb. .1775- —
l.c.l., same basis lb. .1825- —
tanks, same basis lb. .160 - —

m-p-Cresol, 2.97%, 2°C., dms., c.l., frt. equald lb. .2175- —
l.c.l., same basis lb. .2225- —
tanks, same basis lb. .200 - —

o-Cresol, m.p. 30.5° C. and over, ret., dms., c.l., frt. equald lb. .16¾- —
l.c.l., same basis lb. .17¼- —
tanks, same basis lb. .15 - —

30°-30.49° C., ret., dms., c.l., frt. equald lb. .16¼- —
l.c.l., same basis lb. .16¾- —
tanks, same basis lb. .14½- —

29°-29.9° C., ret., dms., c.l., frt. equald lb. .15¾- —
l.c.l., same basis lb. .16¼- —
tanks, same basis lb. .14 - —

25°-28.9° C., dms., c.l., frt. equald. lb. .14¾- —
l.c.l., same basis lb. .15¼- —
tanks, same basis lb. .13 - —

p-Cresol, 98% dms., c.l., dlvd lb. .50 - —
l.c.l. dlvd lb. .51 - —
tanks dlvd lb. 49 - —

Methyl ether, cns lb. 1.80 - 2.05

Crotonaldehyde, 91-93%, dms., t.c.l., works lb. .24¼- .25

Cryolite, nat., indust., bgs., c.l., works 100 lbs. 13.00 - —
l.c.l., works 100 lbs. 14.25 - —

Cube root, powd., 5% rotenone, bgs., c.l., t.l., works lb. .29 - —

Cubeb berries, XX, NF, bgs. lb. .70 - —
powd., cs lb. .85 - —

Cumene, dms., c.l., works lb. .12 - —
l.c.l., works lb. .14 - —
tanks, works lb. .11 - —
l.c.l., works lb. .30 - —

Cumin seed, Iranian, bgs. lb. .18½- —
Moroccan, bgs. lb. .22 - .23
Turkish, bgs. lb. N.P.

Cutch extract, 55% tannin, bgs., ex dock, duty extra lb. .08½- —

Cyanamide fertilizer mixing grades, 21% N, gran., bgs., Niagara Falls, Ont., contract ton. 55.00 - —
pulv., 21% N, bgs., works unit-ton. 2.75 - —

Indust. grade, bgs., c.l., works ton. 75.00 - —
l.c.l., works ton. 96.00 - —
6-16 mesh, dms., c.l., works ton. 120.00 - —
l.c.l., works ton. 140.00 - —

Cyclohexane, 99% tech., dms., c.l., works gal. .70 - —
l.c.l., works gal. .72 - —
tanks, works gal. .55 - —

Cyclohexanol, tech., dms., c.l., works, frt. alld., E lb. .28 - —
l.c.l., works, same basis lb. .29 - —
tanks, works, same basis lb. .24 - —

Cyclohexanone, tech., dms., c.l., works lb. .32½- —
l.c.l., works lb. .35 - —
tanks, works lb. .29 - —

Cyclohexene, min. 98% b.r., 82.5°C-85°C, 360-lb dms., c.l., works lb. .55 - —
l.c.l., same basis lb. .60 - —
tanks, same basis lb. .52 - —

Cyclohexylamine, dms., c.l., works. lb. .49 - —
l.c.l., works lb. .50 - —
tanks, works lb. .47 - —

Cyclopropane, CP, 2-lb. cyls., works. cyl. 48.00 - —
6 oz. cyls., works cyl. 12.00 - —
USP, hospitals, cyls., 40-gal. lots, gal. .38 - —
100-gal. lots gal. .37 - —
200-gal. lots gal. .36 - —

D

2,4-D, tech., dms., c.l., works, frt. equald lb. .37 - —
l.c.l., same basis lb. .42 - .46
Butyl ester, dms., c.l., works. lb. .40 - —
l.c.l., same basis lb. .45 - .49
tanks, same basis lb. .39 - —
Isopropyl ester, dms., c.l., works lb. .40 - —
l.c.l., works lb. .45 - .49
tanks, works lb. .39 - —

Dandelion root, bls lb. .32 - —

DDD, tech., flake, grd., fib., dms., c.l., works lb. .45 - —
l.c.l., works lb. .46 - —

DDT, powder, bgs., c.l., works, frt. equald lb. .23 - .27
smaller lots, same basis lb. .24 - .28
fib., dms., c.l., same basis lb. .24 - .28
smaller lots, same basis lb. .25 - .29

1-Decanol, tech., dms., c.l., dlvd lb. .41 - —
l.c.l. dlvd. lb. .43 - —
tanks, dlvd. lb. .38½- —

Deertongue leaves, bls lb. .45 - —

Defluorinated phosphate, feed grade, 13% P, paper bgs., c.l., t.l., works ton. 49.50 - —
17%P, paper bgs., c.l., t.l., works ton. 58.00 - —
18% P, paper bgs., c.l., t.l., works ton. 64.10 - —

Prices of defluorinated phosphate in bulk $3 per ton less than bag carlot prices.

Degras, common, bbls. lb. .10 - .12
neutral, bbls. lb. .21 - .23

d-Desoxyephedrine, hydrochloride, bots lb. 24.00 -25.00
dl, bots lb. 6.50 - —

Dextrin, corn, gum, paper bgs., c.l. 100 lbs. 9.28 - —
l.c.l. 100 lbs. 9.43 - —
canary, dark, paper bgs., c.l. 100 lbs. 9.12 - —
l.c.l. 100 lbs. 9.27 - —
light, paper bgs., c.l. 100 lbs. 9.02 - —
l.c.l. 100 lbs. 9.17 - —
white, paper bgs., c.l. 100 lbs. 8.86 - —
l.c.l. 100 lbs. 9.01 - —

Corn dextrin in cotton bgs. 15c. per 100 lbs. higher.

Potato, imported, bgs. lb. .10½- .11
Dextrose, USP, dms. lb. .17¾- —

Diacetone (see Alcohol diacetone).

Diacetyl, flavor grade, bots. lb. 4.25 - 5.50

Di-sec-amyl phenol, dms., c.l., works lb. .32 - —
l.c.l., works lb. .33 - —
tanks, works lb. .29½- —

Di-tert-amyl phenol, dms., l.c., works lb. .32 - —
l.c.l., works lb. .33 - —
tanks, works lb. .29½- —

Dibenzyl sebacate, dms., c.l., works. lb. .89¾- .90
l.c.l., same basis lb. .90¼- .91
tanks, same basis lb. .88 - —

p-Dibromobenzene, bgs., 500-lb. lots. lb. .53 - —

Dibutyl phthalate, dms., c.l., dlvd. E lb. .32½- —
l.c.l., same basis lb. .33½- —
tanks, same basis lb. .30 - —

Sebacate, dms., c.l., works lb. .66 - —
l.c.l., works lb. .66½- .67
tanks, works, dlvd lb. .64 - .64½
Tartrate, dms, works, frt. alld. lb. .64 - —

Dibutylamine, dms., c.l., dlvd lb. .55½- —
l.c.l., same basis lb. .56½- —
tanks, same basis lb. .53 - —

2,6-Di-tert-butyl-p-cresol, food grade, dms., t.l., c.l., dlvd lb. 1.20 - —
l.t.l., dlvd lb. 1.24 - —
tech., dms., c.l. lb. .91 - —
l.c.l. lb. .95 - —
tanks lb. .86 - —

Dicapryl phthalate, dms., c.l., dlvd., lb. .31 - .32
l.c.l., dlvd lb. .32 - .33
tanks, dlvd lb. .29½- —
Sebacate, dms., c.l., works lb. .63 - —
l.c.l., works lb. .63½- .64
tanks, works lb. .61 - —

2,5-Dichloroaniline, dms., works lb. .83 —

o-Dichlorohenzene, dms., c.l., frt. alld. E lb. .12¼- —
l.c.l., same basis lb. .13¼- —
tanks, same basis lb. .10¾- —

p-Dichlorobenzene, dms., c.l., f.o.b., works lb. .12 - .14½
l.c.l., same basis lb. .17 —

1,4-Dichlorobutane, dms., c.l. or t.l., works lb. .33½- —
l.c.l. or t.l., works lb. .34 - —
tanks, works lb. .32 - —

Dichlorodiphenyltrichlorothane (see DDT).

Dichloropentanes, dist., dms., c.l., works lb. .05 - —
l.c.l., works lb. .06 - —
tanks, works lb. .03 - —

Dicyclohexylamine, dms., c.l., works. lb. .54 - —
l.c.l., works lb. .55 - —
tanks, works lb. .52 - —

Dicyclohexyl phthalate, fib., dms., c.l., works, frt. alld lb. .58¼- .59
l.c.l., same basis lb. .59¼- .60

Didecyl phthalate, dms., c.l., works. lb. .34 - —
l.c.l., same basis lb. .35 - —
tanks, same basis lb. .31½- —

Dieldrin, dms., frt. alld lb. 1.80 - —
l.c.l., frt. alld lb. 1.85 - —

Diethanolamine, dms., c.l., dlvd, E. lb. .27 - —
l.c.l., same basis lb. .28 - —
tanks, same basis lb. .24½- —

Diethyl carbonate, dms., c.l., frt. alld lb. .47 - —
l.c.l., same basis lb. .48 - —
tanks, same basis lb. .45 - —

Ethanolamines, dms., c.l., dlvd. lb. .69½- —
l.c.l., dlvd lb. .70½- —
tanks, dlvd lb. .67 - —

Oxalate, dms., c.l., frt. alld lb. .42 - —
l.c.l. same basis lb. .43 - .45
tanks, same basis lb. .40 - —

Phthalate, dms., c.l., dlvd. lb. .30 - .30½
l.c.l., dlvd. lb. .31 - .31½
tanks, dlvd. lb. .27½- .28

Sulfate, dms., c.l., works. lb. .19 - —
l.c.l., works lb. .19¾- —
tanks, works lb. .17 - —

Diethylamine, dms., c.l., dlvd. E lb. .51 - —
l.c.l., same basis lb. .52 - —
tanks, same basis lb. .48½- —

N,N-Diethylaniline, dms., c.l., frt. alld lb. .57 - —
l.c.l., same basis lb. .58 - —
tanks, same basis lb. .55 - —

Di-2-ethylhexyl adipate (see Dioctyl adipate).
Phthalate (see Dioctyl phthalate).

Diethylene glycol, dms., c.l., dlvd, E. lb. .17¾- —
l.c.l., same basis lb. .18¾- —
tanks, same basis lb. .15¼- —

Boriborate, dms., l.c.l. lb. .31 —

Diethyl ether, dms., c.l., works. lb. .47½- —
l.c.l., works lb. .48¼- —

Monobutyl ether, dms., c.l., dlvd. E lb. .30¾- —
l.c.l., dlvd, E lb. .31¾- —
tanks, dlvd, E lb. .28¼- —

Acetate, dms., c.l., works. lb. .30¼- —
l.c.l., works lb. .31 - —
tanks, dlvd, E lb. .28¼- —

Monoethyl ether, dms., c.l., dlvd lb. .22½- —
l.c.l., dlvd lb. .23½- —
tanks, dlvd lb. .20 - —

Acetate, dms., c.l., works. lb. .27¼- —
l.c.l., works lb. .28 - —
tanks, dlvd, E lb. .25¼- —

Monomethyl ether, dms., c.l., dlvd lb. .20½- —
l.c.l., dlvd lb. .21½- —
tanks, dlvd. lb. .18½- —

Diethylenetriamine, dms., c.l., dlvd, E lb. .44 - —
l.c.l., dlvd, E lb. .45 - —
tanks, dlvd, E lb. .41½- —

Diethylstilbestrol, USP, bots., 10-kilo lots kilo. 100.00 -147.50
1 kilo lot kilo. 110.00 -152.50

Digitalis leaves, USP, dom., dms., lb. 1.20 - —

Digitoxin, USP, bots gram. 4.75 - 5.25

Diglycol laurate, dms lb. .32¾- .34
Stearate, dms., ton lots lb. .26 - .28

Dihexyl sebacate, dms., c.l., works. lb. .64 - —
l.c.l., works lb. .64½- .65
tanks, works lb. .62 - —

Dihydrazine sulfate, dms., works. lb. 1.10 - 1.25

Dihydrostreptomycin hydrochloride, bulk gram. .0750- .0775
Sulfate, bulk gram. .0750- .0775

1,2-Dihydroxy anthraquinone, dms., works lb. 2.75 - —

2,2-Dihydroxy-5-5-dichloro-diphenyl-methane, pure, dms lb. 2.55 - —
tech., dms lb. 1.09 - —

Di-isobutyl ketone, dms., c.l., dlvd. lb. .17 - —
l.c.l., dlvd lb. .18 - —
tanks, dlvd lb. .14½- —

Phthalate, dms., c.l., dlvd, E lb. .31½- —
l.c.l., same basis lb. .32½- —
tanks, same basis lb. .29 - —

Di-isobutylene, dms., c.l., dlvd, E. lb. .10 - —
l.c.l., dlvd, E lb. .11 - —
tanks, dlvd E lb. .08 - —

Di-iso-octyl pnthalate, dms., c.l., dlvd lb. .31 - —
l.c.l., same basis lb. .32 - —
tanks, same basis lb. .28½- —

Sebacate, dms., c.l. works lb. .63½- —
l.c.l., works lb. .64½- —
tanks, works lb. .61 - —

Di-isopropanolamine, dms., c.l., dlvd. lb. .23¼- —
l.c.l., same basis lb. .24¼- —
tanks, same basis lb. .20¾- —

Di-isopropylamine, dms., c.l., dlvd. E. of Rockies lb. .50½- —
l.c.l., same basis lb. .51½- —
tanks, same basis lb. .48 - —

Dill seed, dewhiskered, bgs. lb. .09¼- —
nat., bgs. lb. .08 - —

Dimethyl anthranilate, cns lb. 4.35 - 5.10

Chloroacetal, dms., c.l., works lb. .45 - —
l.c.l., works lb. .50 - —
tanks, works lb. .40 - —

Ethanolamines, anhyd., dms., c.l., dlvd lb. 1.225 - —
l.c.l., dlvd lb. 1.235 - —
tanks, dlvd. lb. 1.20 - —

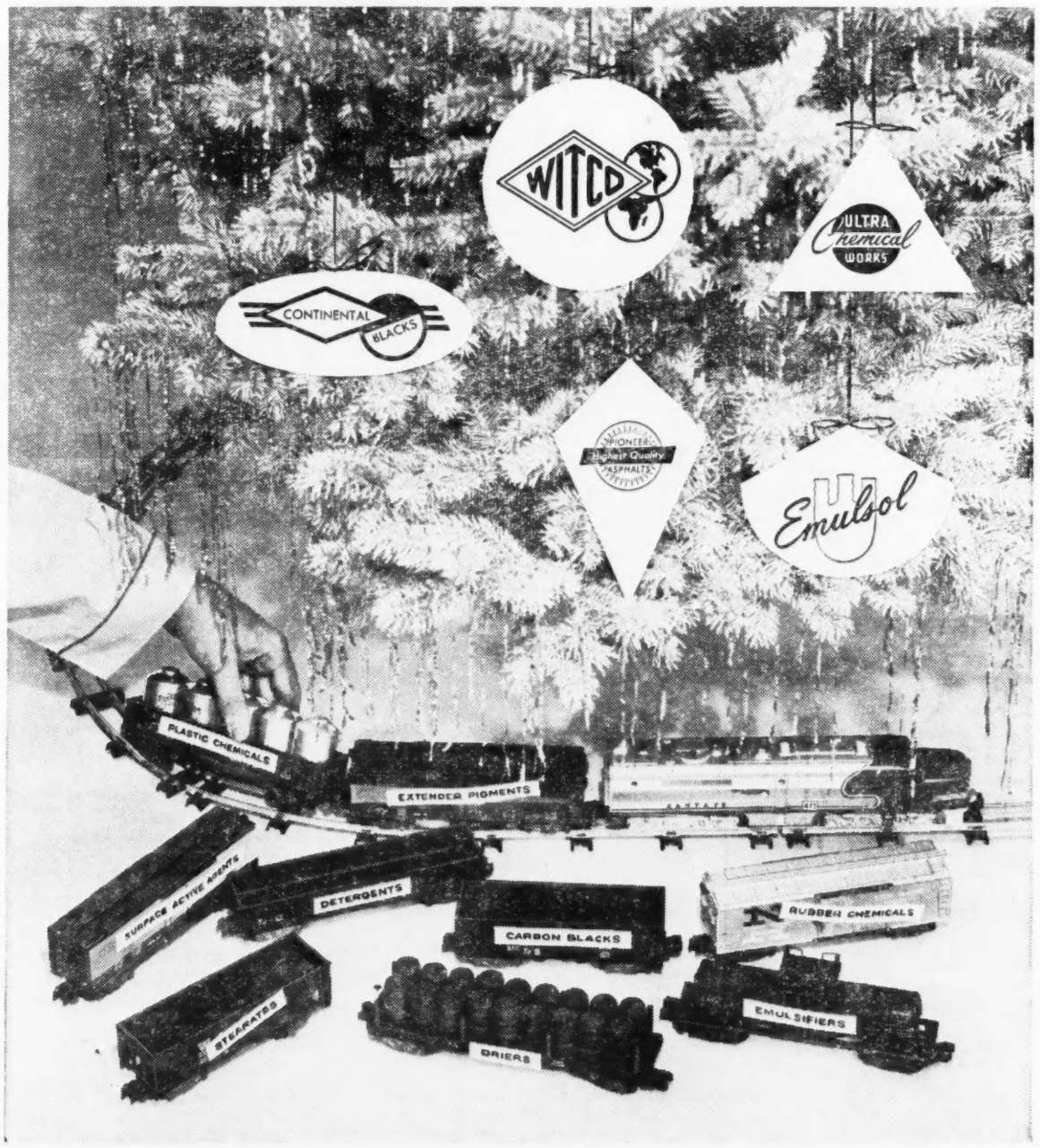
70%, dms., c.l., dlvd., 100% basis, contained amines lb. .68½- —
l.c.l., dlvd., 100% basis lb. .69½- —
tanks, dlvd, 100% basis lb. .66 - —

Hydroquinone, dms. lb. 2.20 - 2.25

Phthalate, dms., c.l., works lb. .31 - —
l.c.l., works lb. .32 - —
tanks, works lb. .28½- —

Sebacate, dms., c.l., works lb. 1.275 - —
l.c.l., dlvd lb. 1.285 - —
tanks, works lb. 1.25 - —

Dimethyl sulfate, 55-gal. ret. dms., c.l., works	lb.	.13	-	—
l.c.l., works	lb	.16	-	—
10-gal ret. dms. l.c.l., works	lb.	.16½	-	—
Dimethylamine 25% soln., dms., c.l., frt equald	lb.	.42	-	—
l.c.l., frt equald	lb.	.42½	-	—
tanks, frt equald	lb.	.33	-	—
40% soln., dms. c.l. frt. equald.	lb.	.39	-	—
l.c.l. frt equald	lb.	.39½	-	—
tanks, frt. equald	lb.	.34	-	—
N,N-Dimethylaniline dms. c.l., frt. alld	lb.	.32	-	—
l.c.l., frt. alld	lb.	.33	-	—
tanks, frt. alld	lb.	.30	-	—
N,N-Dimethylformamide dms. works	lb.	.34		.39
tanks works	lb.	.32		—
2,4-Dinitroaniline dms., 1,000-lb. lots, same basis, frt. equald	lb.	.68	-	—
smaller lots, frt. equald	lb.	.71	-	—
m-Dinitrobenzene 85°C., dms	lb	.22	-	—
89°C., dms	lb	.24	-	—
2,4-Dinitrochlorobenzene, crystallizing at 46½°C., dms., c.l., frt alld E	lb.	.15¼		—
l.c.l., frt alld E	lb.	.15¾		—
tanks, frt alld E	lb.	.15		—
2,4-Dinitrochlorobenzene, crystallizing at 48°C., dms., c.l., frt alld E	lb.	.20¼		—
l.c.l. frt alld E	lb.	.20¾		—
tanks, frt alld E	lb.	.20		—
2,4-Dinitrophenol bbls	lb.	.37	-	—
2,4-Dinitrotoluene oily, dms	lb.	.11	-	—
refd., 63°C. dms	lb.	.23	-	—
Dioctyl adipate dms., c.l., works	lb.	.42½	-	—
l.c.l., works	lb.	.43½	-	—
tanks, works	lb.	.40	-	—
Phthalate, dms., c.l., frt. alld	lb.	.31	-	—
l.c.l., frt. alld.	lb.	.32	-	—
tanks, frt. alld.	lb.	.28½	-	—
Sebacate, dms., c.l., works	lb.	.60½	-	—
l.c.l., works	lb.	.61½	-	.62½
tanks works, dlvd	lb.	.58	-	.58½
1,4-Dioxane, dms., c.l., works	lb.	.26¾	-	—
l.c.l., same basis	lb.	.29¼	-	—
tanks, same basis	lb.	.27	-	—
Dip oil (see Tar acid oil).				
Dipentaerythritol bgs., l.c.l., works	lb.	.35	-	—
Dipentene dest-dist., dms., c.l., works	gal.	.47	-	—
l.c.l., works	gal.	.52	-	—
ex-whse.	gal.	.62	-	—
steam-dist. dms., c.l., works, South	gal.	.59	-	—
dlvd. N. Y	gal.	.67	-	—
tanks, works, South	gal.	.45	-	—
Diphenyl, bbls., c.l., works	lb.	.15	-	—
l.c.l., works	lb.	.16	-	—
Diphenyl in bags ¼c. lower				
Oxide, perfume grade, cns	lb.	.56		.61
Phthalate dms., c.l., works	lb.	.51¾		—
l.c.l., works	lb.	.53¾		—
Diphenylamine, refd., flake, bgs., c.l., works, frt. equald	lb.	.33	-	—
l.c.l., works, frt. equald	lb.	.35	-	—
fused, tanks works, frt equald.	lb.	.31	-	—
tech. fused, tanks, works, frt. equald	lb.	.30	-	—
Diphenylguanidine, bgs., dms., ton lots, frt. alld	lb.	.52	-	—
smaller lots, frt. alld.	lb.	.53	-	—
Diphenylhydantoin-sodium USP, dms	lb	5.00		5.60
Dipropylene glycol dms. c.l., frt. alld	lb.	.17¾	-	—
l.c.l., same basis	lb.	.18¾	-	—
tanks, same basis	lb.	.15¼	-	—
Monomethyl ether dms., c.l., dlvd E	lb.	.20	-	—
l.c.l., same basis	lb.	.21	-	—
tanks, same basis	lb.	.18½	-	—
Di-o-tolylguanidine, dms., ton lots, frt. alld	lb.	.62	-	—
smaller lots, frt. alld	lb.	.63	-	—
Divi-divi, 45% tannin, bgs., bls., c.l., U. S. ports, exdock	ton.	78.00		Nom.
Divinylbenzene 20-25% dms., c.l., works, frt. equald	lb.	.20	-	—
l.c.l., same basis	lb.	.21	-	—
tanks, same basis	lb.	.19	-	—
50-60% dms., c.l., works, 100% basis	lb.	1.00	-	—
l.c.l. works, 100% basis	lb.	1.05	-	—
Dodecylbenzene, dms., c.l., frt. alld	lb.	.14	-	—
l.c.l., same basis	lb.	.15	-	—
tanks, same basis	lb.	.12	-	—
Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 1-lb. lots, dlvd:—				
Blue, FD & C No. 1	lb.	15.65		17.60
No. 2	lb.	15.65		17.60
Green, FD & C, No. 1	lb.	15.65		17.60
No. 2	lb.	19.60		22.85
No. 3	lb.	21.30		35.90
Red, FD & C, No. 1, cns	lb	5.90		7.85
No. 2	lb.	3.30		4.10
No. 3	lb.	19.60		22.85
No. 4	lb	5.55		7.50
Violet, FD & C, No. 1, cns	lb.	15.65		17.60
Yellow, FD & C, No. 1, cns	lb.	9.15		11.05
No 5	lb	3.30		4.10
No 6	lb	3.30		4.10
Dyes, coaltar, certified colors for drugs and cosmetics, 200 lb. and 1 lb. lots, dlvd:—				
Black D&C, No. 1	lb.	10.50		10.95
Brown, D&C, No. 1	lb.	15.65		16.10
Green, D&C, No. 5	lb.	15.65		16.10
No 6	lb.	15.65		16.10
No 7	lb.	14.35		14.80
Dyes, coaltar, certified colors for drugs and cosmetics, 1-lb. lots, works, 25-50 lb lots, dlvd:—				
Orange D&C, No. 3	lb.	10.50		10.95
No 4	lb.	19.60		20.05
No. 5	lb	5.25		5.70
No. 17	lb.	10.50		10.95
No. 18	lb.	23.55		24.00
No. 19	lb.	15.60		15.45
No. 21	lb	3.10		3.60
No. 22	lb.	10.50		10.95
No. 23	lb.	24.20		24.65
No. 33	lb.	17.00		17.45
Violet, D&C, No 2	lb.	15.65		16.10
Yellow D&C, No. 7	lb.	10.50		10.95
No. 8	lb.	10.50		10.95
No. 10	lb.	13.05		13.50
No 11	lb.	13.05		13.50
Dyes, coaltar, certified colors for drugs and cosmetics, external use, 1-lb. lots, works, 25-50 lb. lots dlvd:—				
Blue Ext., D&C, No 1, cns	lb.	15.65		16.10
Green, Ext., D&C, No. 1, cns	lb	15.65		16.10
Red, Ext. D&C, No. 1, cns	lb.	13.05		13.50
Yellow, Ext., D&C, No 1, cns	lb.	10.50		10.95
Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour Index scale or prototype), contract, dlvd., No.				
20 Chrysoidine Y, dustless	lb.	.89	-	—
27 Fast light, orange 2G	lb	1.09	-	—
31 Phloxine 2G	lb	.89	-	—
36 Yellow 2G	lb	1.00	-	—
40 Orange II extra, conc	lb	1.29	-	—
57 Fuchsine 6B	lb	1.31	-	—
79 Scarlet 2R	lb.	.98	-	—
151 Orange AD	lb.	.67	-	—
161 Orange RR	lb	.80	-	—
176 Fast red A	lb	1.18	-	—
179 Rubine XX, conc	lb	1.25	-	—
180 Blue F4B	lb	1.11	-	—
185 Brilliant scarlet 3RN, conc.	lb.	1.02	-	—
202 Chrome blue black R, conc.	lb	.91	-	—
203 Chrome black T	lb	.94	-	—
208 Fast blue SR	lb	1.10	-	—
216 Chrome red B	lb	.92	-	—
234 Brown Y	lb	1.08	-	—
246 Blue black, extra, conc	lb	1.16	-	—
275 Milling red 3R, conc	lb	1.62	-	—
289 Navy blue 3R, conc	lb	1.44	-	—
299 Black F conc	lb	1.86	-	—
304 Neutral black 2B, conc.	lb.	2.21	-	—
326 Fast scarlet 4BNC	lb	1.80	-	—
332 Bismark brown RX, conc., dustless	lb	1.16	-	—
365 Brilliant yellow conc	lb	3.11	-	—
382 Scarlet B	lb	2.20	-	—
401 Diazo black BHD	lb	.79	-	—
406 Blue 2B, extra conc	lb	1.30	-	—
419 Red FC	lb	1.23	-	—
420 Brown M	lb	1.19	-	—
448 Red 4BX conc	lb.	1.43	-	—
518 Diamine sky blue FF, extra, conc	lb	1.65	-	—
561 Brown B	lb	2.45	-	—
581 Black EB, 200%	lb	1.13	-	—
593 Green BY conc	lb	.87	-	—
596 Yellow brown K, extra	lb.	1.07	-	—
620 Yellow 2G	lb	1.11	-	—
639 Fast Yellow GG	lb.	1.97	-	—
640 Yellow XX	lb	1.95	-	—
655 Yellow OX	lb	2.24	-	—
657 Green V	lb	2.31	-	—
662 Brilliant green G	lb	3.07	-	—
667 Milling green 6B conc	lb	4.05	-	—
671 Blue EG	lb	1.68	-	—
681 Crystal violet powder	lb	2.15	-	—
698 Violet 6BN powder	lb.	1.91	-	—
Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour Index scale or prototype), contract dlvd No				
720 Brilliant blue BBG	lb	2.07	-	—
729 Blue B, extra conc	lb.	3.06	-	—
749 Red BX	lb.	4.76	-	—
800 Chinoline yellow ZSS	lb	2.67	-	—
860 Induline base ZM	lb	1.07	-	—
860 Induline base Z2R	lb	1.07	-	—
814 Yellow NN, conc	lb	3.11	-	—
841 Safranine GF, extra, conc.	lb	3.48	-	—
865 Nigrosine J	lb	4.76	-	—
922 Blue GXX	lb	1.88	-	—
978 Black GXCF, conc	lb	.32	-	—
1034 Alizarine red SC	lb	2.85	-	—
1054 Alizarine blue SAPX	lb	3.20	-	—
1078 Alizarine green CG, extra	lb	2.99	-	—
1085 Alizarine blue black B	lb	2.56	-	—
1096 Golden orange GFD, single paste	lb	2.19	-	—
1099 Dark blue BO, single paste	lb	1.93	-	—
1101 Jade green N supra double paste	lb	1.10	-	—
1106 Blue RS, double paste	lb	3.26	-	—
1113 Blue BLFD, double paste	lb	2.48	-	—
1150 Olive R, single paste	lb	1.21	-	—
1151 Brown R single paste	lb	1.94	-	—
1171 Indigo synthetic 20% paste	lb	31	-	—
1217 Orange RD, double powder	lb	3.94	-	—
p-4 Brown PG	lb	2.54	-	—
p-14 Brown EB	lb	1.83	-	—
Dyes, coaltar, for general use in cloth dyeing (numbers are those of the Colour Index scale or prototype) contract dlvd., No				
p-24 Gray L	lb	1.76	-	—
p-80 Diazo brilliant scarlet ROAD	lb	3.07	-	—
p-202 Diazo black VJ, conc	lb	2.10	-	—
p-244 Brilliant scarlet BN	lb	1.44	-	—
p-313 Naphthol SWF	lb	2.24	-	—
Dyes, coaltar, oil-soluble, 100-lb. drums., dlvd.				
24 Oil orange Z-7078	lb	1.06	-	—
73 Oil scarlet BL	lb.	1.44	-	—
1073 Oil violet ZIRS	lb	6.81	-	—
1078 Alizarine cyanine green base Z	lb	6.13	-	—
D&C Oil violet special Z	lb	6.81	-	—
Oil black ZBC	lb	4.46	-	—
Oil black ZBD	lb	3.03	-	—
Oil black ZHH	lb	4.61	-	—
Oil black ZMM	lb	6.52	-	—
Oil blue ZN	lb	8.02	-	—
Oil blue ZV	lb	4.95	-	—
Oil orange ZMG	lb	1.32	-	—
Oil red Z-1700	lb	1.49	-	—
Oil yellow ZG conc	lb	6.35	-	—
Dyes coaltar, spirit soluble 100 lb dms. dlvd				
p-517 Spirit yellow ZR	lb	4.62	-	—
p-520 Spirit orange ZR, conc	lb	5.87	-	—
Spirit black ZRB	lb	2.95	-	—
Spirit brown ZG	lb	5.30	-	—
Spirit red ZB, conc	lb	6.41	-	—



Seasons Greetings and best wishes for the New Year

WITCO 36 Years of Growth

WITCO CHEMICAL COMPANY

122 East 42nd Street, New York 17, N. Y.

Ultra Chemical Works, Inc. Emulsol Chemical Corporation Continental Carbon Company Pioneer Products Division

E

Echinacea root, bls ..... lb 1.10 —
Egg albumin (see Albumin).
Yolk, dried, dom., bbls ..... lb 1.03 - 1.05
tanners bbls ..... lb .06 .06½
Elm bark, grinding, bls ..... lb .30 .32
powd. bbls., bxs ..... lb 45 —
select, bundles ..... lb 75 —
Emetine hydrochloride, USP bots ..... oz 48.25 -49.00
Endrin tech. dms. dlvd., 100% basis lb 3.75 —
Ephedrine, syn., USP, anhyd., bots. 100 oz lots oz .98 1.00
hydrous bots. 100 oz lots oz .92 —
Hydrochloride, tins, 100-oz.-lots oz. .75 - —
Sulfate, cryst., tins, 100-oz lots oz. .72 - —
oz. lots oz. .72 - —
powd. tins 100-oz lots oz .73 - —
Epichlorohydrin, dms., c.l., dlvd lb .35 - —
l.c.l. dlvd lb .36 - —
tanks, dlvd lb .33 - —
Epinephrine syn. USP bots. 100-gram lots gram .60 —
Epsom salt (see Magnesium sulfate)
Ergot, NF dms. tin-lined lb 2.00 —
Eserine salicylate, bots ..... oz. 72.50 -84.00
Sulfate, bots ..... oz. 87.75 —
Ether (see specific product)
Ethyl acetate, nat., ferment 85-88% dms., c.l., frt. alld lb. .14½ - —
l.c.l., frt. alld ..... lb. .15½ - —
tanks, frt. alld lb. .12 - —
95-98% dms. c.l. frt. alld. lb. .14¾ - —
l.c.l., frt. alld ..... lb. .15¾ - —
tanks, frt. alld ..... lb. .12¼ - —
99% dms., c.l., frt. alld lb. .15 - —
l.c.l., frt. alld ..... lb. .16 - —
tanks, frt. alld ..... lb. .12½ - —
syn., 85-88% dms., c.l., dlvd. lb. .14½ - —
l.c.l., dlvd ..... lb. .15½ - —
tanks, dlvd ..... lb. .12 - —
95-98%, dms., c.l., dlvd ... lb. .14¾ - —
l.c.l. dlvd ..... lb. .15¾ - —
tanks, dlvd ..... lb. .12¼ - —
99%, dms., c.l., dlvd ..... lb. .15 - —
l.c.l., dlvd ..... lb. .16 - —
tanks, dlvd ..... lb. .12½ - —
Acetotate, dms., c.l., dlvd ..... lb. .58½ - —
lb. .58½ - —
l.c.l., dlvd ..... lb .56 —
tanks, dlvd .....
Acrylate, dms., c.l., t.l., dlvd. lb. .36 - —
t.l. dlvd ..... lb. .37 - —
tanks dlvd ..... lb. .34 - —
Aminobenzoate, USP (see Benzocaine)
Amyl keytone, dms., c.l., dlvd lb. .20 - —
Amyl ketone dms. c.l., dlvd lb. .20 - —
l.c.l. same basis ..... lb. .21 - —
tanks, same basis ..... lb. .17½ - —
Benzoate, bots ..... lb. .74 .90
Bromide tech. 98% dms., c.l., frt alld E lb. .42 - 44
l.c.l., frt alld. E lb. .44 - 46
Butyl ketone, dms. c.l., works. lb. .36 - —
l.c.l., works ..... lb. .36¾ - —
tanks, works ..... lb. .34 - —
Butyrate works ..... lb. .85 - .90
Carbamate (see Uretnane)
Cellulose vis 7 cps bgs. 5,000-lb. lots or more works lb. .70 —
smaller lots works lb. .72 .80
vis 10, 20, 50, 100, 150 cps bgs., 2,000-lb lots or more, works lb .65 - .70
smaller lots works lb .67 - .81
Chloride tech. cyl., works ..... lb .20 .22
dms. works ..... lb 10 —
tanks works ..... lb 3.35 3.45
Cinnamate cns ..... lb .27 - —
Ether, absolute, ACS, dms ..... lb. anesthesia USP hospitals, 1-lb cns lb 1.01 - —
½ lb cns lb 1.11 - —
¼-lb cns lb 1.21 - —
Indust., dms., c.l., dlvd ..... lb. .12½ - —
l.c.l., dlvd E ..... lb. .13½ - —
tanks dlvd E ..... lb 10 —
Callate, dms., 100 to 2,000-lb. lots lb 3.90 - 4.40
Iodide, dlvs., works ..... lb. 3.30 - —
Methacrylate, dms., c.l. and less than truckload works, frt equald lb 51½ .52
Morphine hydrochloride, USP bots oz 11.85 —
Nitrite (see Nitrous ether)
Oenanthate dms ..... lb 1.00 1.50
Oleate, dms., l.c.l. works lb No prices
Oxalate (see Diethyl oxalate)
Silicate dist (see Tetraethyl orthosilicate).
40% available SiO_2, dms., c.l., dlvd lb. .49½ - —
l.c.l. dlvd lb. .50½ - —
tanks dlvd lb 47 —
Ethylethanolamines, mixed, dms., c.l., dlvd E lb 43½ - —
l.c.l. dlvd E lb 44½ - —
tanks, dlvd E lb 41½ - —
N-Ethyl-a-naphthylamine, dms., works lb 1.02 - —
N-Ethyl-o-toluidide, bbls lb .88 - —
Ethylamine (see Mono-, Di- or Tri-)
N-Ethylaniline, dms., c.l., frt alld. lb. .57 - —
l.c.l., frt. alld ..... lb. .58 - —
tanks, frt. alld ..... lb. .55 - —
Ethylbenzene, 99% dms., c.l., or t.l., frt equald lb 17 - —
t.l. same basis ..... lb 18 - —
tanks, same basis ..... lb 15 - —
Ethylene dichloride, dms., c.l., dlvd. lb. .11½ - —
l.c.l. same basis ..... lb. .12½ - —
tanks, same basis lb. .09 - —
Ethylene dichloride prices W. of Rockies 1c. per lb higher.
Glycol, indust., dms., c.l., dlvd, E lb. .16 - —
l.c.l., same basis ..... lb. .17 - —
tanks, same basis ..... lb. .13½ - —
Monobutyl ether, dms., c.l., dlvd. E lb. .22 - —
l.c.l. dlvd E lb. .23 - —
tanks, dlvd E lb 19½ - —
Monoethyl ether, dms., c.l., dlvd. E lb. .21 - —
l.c.l. dlvd E lb. .22 - —
tanks, dlvd E ..... lb 18½ - —
Acetate, dms., l.c., dlvd E, lb. .19½ - —
l.c.l. dlvd E lb. .20½ - —
tanks, dlvd E lb 17 - —
Monomethyl ether, dms., c.l., dlvd. E lb. .21 - —
l.c.l. dlvd E lb. .22 - —
tanks, dlvd E lb 18½ - —
Acetate, dms., l.c., dlvd. E, lb. .29 - —
l.c.l. dlvd E ..... lb. .29¾ - —
tanks, dlvd E lb 27 - —
Monostearate, triple pressed, dms lb. .33 - .35
Ethylene oxide, dms., c.l., dlvd. E. lb. .21½ - —
l.c.l. dlvd E lb. .24½ - —
tanks, dlvd E lb. .15½ - —
Trichloride (see Trichloroethane).
Ethylenediamine, 85-88%, dms., c.l., dlvd E, 100% basis lb. .46 - —
l.c.l. dlvd E, 100% basis lb. .47 - —
tanks, dlvd E, 100% basis lb. .44 —
Ethylvanillin, cns., 25-lb lots .. lb 6.20 6.25
Eucalyptol, USP, cns., dms. ..... lb. 1.25 - 1.40
Eugenol, USP, bots ..... lb 2.25 2.60
Euphorbia herb, bls ..... lb .15 .17

F

Feldspar, 140-200 mesh, bulk, c.l., works ton 18.50 —
Feldspar in bags $3 per ton higher
Fennel seed, Argentine, bgs .... lb. .13½ - —
Czech, medium, bgs ..... lb. .09 - —
Indian, light, bgs ..... lb. .15½ - —
Roumanian, bgs ..... lb. .09 - —
Fenugreek seed, Indian, bgs . lb. .08½ .09
Moroccan, bgs ..... lb. .09½ .09
Ferric acetate liquor, 28°, bbls., c.l. works lb .09 —
l.c.l., works ..... lb. .09¾ - —
soln., USP IX cbys ..... lb .16 —
djns ..... lb 17 —
Cacaodylate, NF, bots ..... lb 13.00 -14.00
Chloride, anhyd., tech., dms., c.l., works 100 lbs. 7.00 - —
l.c.l., works 100 lbs 7.85 —
indust. cryst. bbls. c.l. works 100 lbs 5.25 6.75
l.c.l. works 100 lbs. 5.75 7.25
42° Be photo grade, cbys., c.l. works 100 lbs. 7.25 8.25
sewage grade, tanks, frt. equald 100% basis, 100 lbs. 3.50 - —
USP cryst. dms. works lb .17½ .09
Citrate, gran., dms ..... lb. .86 - —
Hypophosphite, NF, dms lb. 3.45 —
Naphthenate, liq. 6% Fe, dms., frt alld lb. .25¾ —
Oxalate, gran. dms lb. .85 .87
Oxides (see oxides under Black, Brown, Red, and Yellow.)
Phosphate, NF, soluble, gran., pearls cs lb. .64 .65
Pyrophosphate, NF VII, soluble, powd., gran., pearls, dms., 10,000 lb lots lb. .40½ —
Resinate, 6¾% Fe, dms., frt alld. lb. .29½ —
Stearate, dms. c.l. frt alld lb. .37 —
l.c.l. frt alld lb .38 .42
Sulfate, partially hydrated, bgs., c.l., works ton 31.75 -33.75
t.c.l. works ton 34.75 -40.75
lb .27 —
Ferric-ammonium, citrate, brown, pearls, NF, gran., dms lb. .65 - .68
green pearls, USP XII, gran., dms lb. .66 - .69
Oxalate, fine gran., dms lb. .25½ .28½
Ferric-potassium oxalate, fine gran., dms lb. .30½ .33½
Ferric-sodium oxalate, fine gran., dms lb. .25½ .28½
Ferrous gluconate, NF, dms lb .94 —
Sulfate, gran., bgs., c.l. works ton 34.00 —
t.c.l. dlvd Metropolitan area 100 lbs 3.35 4.25
bbls., c.l. works ton 40.00 —
bulk, c.l., works ton 27.00 —
USP cryst. bbls dms ..... lb .09½ .10
Fir balsam Canada, cns ..... gal 32.00 —
Oregon, bbls ..... gal. 4.50 —
Fishliver oil (see Oil fishliver)
Fishmeal, dom., menhaden, 60% protein grd. bgs. Chesapeake Bay area ton 140.00 - —
scrap, same basis ton 136.00 - —
Fleaseed (see Psyllium seed)
Formaldehyde, 37%, (inhibited, 7 to 8% methanol), USP, Zone 1, dms., c.l., dlvd lb. .0675- —
tanks, dlvd lb. .0420- —
Zone 2, dms., c.l., dlvd lb. .0705- —
tanks, dlvd lb. .0450- —
(12 to 15% methanol), USP, Zone 1, dms., c.l., dlvd lb. .0700- —
tanks, dlvd lb. .0445- —
Zone 2, dms., c.l., dlvd lb. .0735- —
tanks, dlvd lb. .0460- —
(uninhibited, methanol-free), Zone 1, tanks, dlvd lb. .0395- —
Zone 2, tanks, dlvd lb. .0420- —
Fringetree bark, bls lb .60 .61
Fullers earth, bgs. c.l. Ill. mines, ton 19.00 —
powd., insecticide grade, dried, bgs. c.l. Ga. or Fla. mines ton 17.50 - —
calcined, bgs. c.l., same basis ton 20.00 -21.75
oil-bleaching grade, 100-mesh, bgs., c.l. same basis ton 16.30 -17.00
200-mesh, bgs. c.l., same basis ton 17.50 -18.00
spent, bgs. c.l. shipt point ton 4.50 5.00
Furfural, dms. c.l. works ..... lb. .13 - —
l.c.l. works ..... lb. .14 - —
tanks, dlvd E ..... lb. .12 - —
dlvd W ..... lb. .13 - —
Fusel oil, refd., dms., c.l. dlvd lb. .18 - —
l.c.l. dlvd ..... lb. .19 - —
tanks, dlvd ..... lb. .15½ - —
Fustic extract, cryst. No. 1, bbls., l.c.l lb. .47½ - —
No. 2, bbls. l.c.l ..... lb. .45½ - —
No. 3, bbls. l.c.l ..... lb .43½ - —
liq., No. 1, bbls., l.c.l ..... lb. .22½ - —
No. 2, bbls. l.c.l ..... lb .21½ - —
No. 3, bbls. l.c.l ..... lb. .19 - —
solid No. 1 bxs. l.c.l ..... lb. .45 - —

G

G salt, bbls. frt alld. 100% basis lb .73 - —
Gammapicoline (see g-Picoline)
Gelatin, edible, pure (pork skin), 75 Bloom test, bbls., c.l lb. .53 - —
150 Bloom test, bbl., c.l lb. .64 - —
200 Bloom test, bbls., c.l lb. .70 - —
225 Bloom test, bbls., c.l lb. .73 - —
275 Bloom test, bbl., c.l lb. .81 - —
Gelsemium root, bls ..... lb. .26 - —
Gentian root, bls ..... lb. .23 - —
grd., bbls., bxs ..... lb. .27 - —
powd., bbls., bxs ..... lb .27 - —
Geraniol, extra, cns., dms. ..... lb 3.95 - —
standard, cns., dms. ..... lb 3.75 - —
Geranyl acetate, cns ..... lb 3.95 - —
Ginger oleoresin, NF, from African root, bots lb 4.00 - 7.75
from Jamaican root, bots lb 6.00 -10.25
Root, African, bls. ..... lb. .33 - —
Cochin, bgs ..... lb. .26½ - —
Jamaican, No. 2, bgs ..... lb. .76 - —
No. 3 bgs. ..... lb. .75 - —
Nigerian, split, bgs. ..... lb. .28 - —
Glauber's salt, anhyd. (see Sodium sulfate)
Glue, bone, extracted, dry bone, 86 jellygrams bgs., c.l., dlvd lb. .15 - —
104 jellygrams, same basis lb. .17 - —
131 jellygrams, same basis lb. .18 - —
164 jellygrams, same basis lb. .20½ - —
191 jellygrams, same basis lb. .21 - —
222 jellygrams, same basis lb. .22 - —
12 green 40 jellygrams, bgs., c.l., dlvd lb. .13½ - —
65 jellygrams, same basis lb. .13¾ - —
86 jellygrams, same basis lb. .14 - —
115 jellygrams, same basis lb. .14½ - —
135 jellygrams, same basis lb. .15 - —
164 jellygrams, same basis lb. .16 - —
180 jellygrams, same basis lb. .17 - —
200 jellygrams, same basis lb. .18½ - —
Bone glue l.c.l. prices 1c higher.
Hide, 70-94 jellygrams, bgs., c.l., dlvd lb. .15 - —
95-121 bgs. c.l. dlvd lb .16 —
122-149, bgs., c.l., dlvd ..... lb. .18½ - —
150-177, bgs., c.l., dlvd ..... lb. .21 - —
178-206, bgs., c.l., dlvd ..... lb. .23½ - —
207-236, bgs., c.l., dlvd ..... lb. .26 - —
237-266, bgs., c.l., dlvd ..... lb. .28 - —
267-298, bgs., c.l., dlvd ..... lb. .30 - —
299-330, bgs., c.l., dlvd ..... lb. .32 - —
331-362 bgs. c.l., dlvd ..... lb. .34 - —
363-394, bgs., c.l., dlvd ..... lb. .36 - —
395-427, bgs., c.l., dlvd ..... lb. .38 - —
428-460, bgs., c.l., dlvd ..... lb. .40 - —
461-494, bgs., c.l., dlvd ..... lb. .42 - —
495-529, bgs., c.l., dlvd ..... lb. .43 - —
Hide glue l.c.l. prices 1c higher
l-Glutamine, bots gram .65 - —
Glycerine, nat., crude, saponification, 88%, to refineries, tanks lb. .16½ - —
soaplye, 80%, tanks lb. .15 - —
refd., CP USP 99% dms., c.l., dlvd lb. .29⅜ - —
l.c.l., dlvd ..... lb. .29⅞ - —
tanks, dlvd ..... lb. .27⅜ - —
96% dms., c.l., dlvd lb. .28½ - —
l.c.l., dlvd ..... lb. .29 - —
tanks, dlvd ..... lb. .27 - —
high gravity, dms. c.l., dlvd, lb. .29¼ - —
l.c.l., dvld ..... lb. .29¾ - —
tanks, dlvd ..... lb. .27¾ - —
yellow, refd., high gravity lb. .28½ - —
l.c.l., dlvd. ..... lb. .29 - —
syn., dms., c.l., dlvd ..... lb. .29½ - —
l.c.l., dlvd. ..... lb. .30 - —
tanks, dlvd ..... lb. .28 - —
Glycine (see Acid aminoacetic)
Glycerol (see Glycerine).
Glyoxal, 30% dms. c.l., works lb. .18½ - —
l.c.l., works ..... lb. .19¼ - —
tanks, works ..... lb. .18 - —
Golden seal root, NF tested, bls lb. 3.50 - —
Graphite, amorpn., powd., bgs., fib. dms., ex whse lb. .06 - .09½
crystalline, 88-90% powd., bgs., fib dms., ex whse lb. .19 - .21½
90-92%, powd., bgs., fib. dms., ex whse lo. .21 - .24½
95-97%, powd., bgs., fib. dms., ex whse lb. .29 - .31½
Flake, No. 1, 90-95%, bgs., fib. dms., ex whse ..... lb. .29 - .31
No. 2 90-95% bgs. fib dms., ex whse lb. .29 .31
Grease, white, choice, all hog, dlvd. lb. .08 - .08½
yellow, tanks, dlvd. lb. .05⅝ - .05¾
Green, brilliant, thioflavin, toner, molybdated, PMA, kgs., works lb 5.10 - —
tungstated, PTMA, kgs. works. lb 6.40 - —
Chrome, CP, dark, light, medium, blue content 1 to 15%, bbls., N. of Tenn. and N. C., E. of Miss., including St. Paul, Minn., Davenport, Rock Island, St. Louis lb. .40 - .42
16-30%, bbls., same basis lb. .40 - .42
31-45%, bbls., same basis lb. .41 - .43
45-48%, bbls., same basis lb. .44 - .46
color, 25% lb. .19 - .20
Chrome green prices are ½c. higher, dlvd. at the following points, except as noted:—Ala., Fla., Ga., La. (Shreveport 1½c.), Miss. N. C., S. C., Tenn., Texas (Dallas, Ft. Worth, 1¼c.; El Paso, 2c.); Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph; 1c higher dlvd. Pac. coast; for Denver, Pueblo, Salt Lake City, Wichita prices are equalized with Chicago.
Chromium oxide, hydrated, bbls., fib. dms., c.l., frt. alld. lb. 1.00 - 1.20
pure, bgs., c.l., frt. alld ... lb. .44¾ - —
l.c.l., same basis ..... lb. .45½ - —
Dyes (see Dyes, coaltar).
Malachite, straight, PTMA, bbls., works lb 4.60 - —
Paris (see Paris green)
Phthalocyanine toner, bbls., works, lb 3.95 - —
resinated, bbls lb 3.50 - —
water dispersable, bbls ... lb 1.71 - —
Pigment B kegs ..... lb. 1.35 - —
paste, kegs ..... lb. .38 - —
Grindelia robusta herb, bls ..... lb. .38 - .40
Guaiacol, NF, cryst. dms., tins lb 2.10 - 2.15
liq., cbys., dms ..... lb 2.30 - 2.40
Carbonate, NF VII, dms .... lb 3.40 3.45
Gum, aloe (see Aloe)
Arabic, amber, sorts, bgs ..... lb. .21 - .23
powd., USP, bbls ..... lb. .27 - .29
Asafetida (see A).
Asphaltum (see A).
Benzoin, Sumatra, cs ..... lb. .33 - —
Camphor (see C).
Cellulose, high vis., bgs., 23,000-lb lots or more, works, frt alld lb. .55 - —
smaller lots same basis lb. .57 - —
Copal, Congo, No. 1, bgs. .... lb. .22½ - .25
No. 2, bgs. ..... lb. .18½ - .20
No. 3, bgs. ..... lb. .15¼ - .17
Manila, C, bgs ..... lb. .36½ - .40
CBB, bgs. ..... lb. No stocks.
DBB, bgs ..... lb. .26¾ - .29
DK, bgs ..... lb. No stocks.
dust, bgs ..... lb. .14 Nom.
MA, soft, bgs ..... lb. .18½ - .21
WS, bgs. ..... lb. No stocks.
Philippine, pale, chips, bgs ..... lb. .21½ - .24
nubs, bgs ..... lb. .31¾ - .34
seeds, bgs ..... lb. .20 - .22
sorts, bgs ..... lb. .19¾ - .22
Pontianak, chips, bgs. ..... lb. .26 - —
nubs, bgs ..... lb. .37¾ - .40
Dammar, Batavia, A/E, cs .... lb. No stocks.
dust, bgs ..... lb. .16 - .18
E, bgs ..... lb. .20 - .22
East India, batu, bold, bgs ..... lb. .13½ - .15
nubs and chips, bgs .... lb. .08 - .09
black, bold, bgs ..... lb. .14 - .16
unscraped, bgs. ..... lb. .11¾ - .13
nubs and chips, bgs .... lb. .11 - .13
pale, chips, bgs. ..... lb. .12¾ - .14
nubs, bgs ..... lb. .17 - .19
Siam, cs. ..... lb. .36½ - .39
Singapore, No. 1, bgs ..... lb. .44¼ - .46
No. 2, bgs. ..... lb. .31¾ - .33
No. 3, bgs ..... lb. No stocks.
dust, bgs. ..... lb. .16¾ - .18
seeds, bgs ..... lb .20 - .22
Gum, ester, gum-rosin type, dms., c.l., dlvd., Ill., Md., Ky., Mich., Mid-Atl. States, N. E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va., W. Va lb. .14½ - .16
Wood-rosin type, dms., c.l., same basis ..... lb. .15 - .16
Guar, food grade, bgs. ..... lb. .50 - —
tech. grade, bgs ..... lb. .40 - —
Karaya, No. 1, NF, powd., bbls. lb. .50 - —
No. 2, powd., bbls ..... lb. .35 - .38
No. 3, powd., bbls ..... lb. .32 - .35
Locust bean, powd., bgs ..... lb. .50 - —
Myrrh, cs ..... lb. .55 - —
Opium (see Opium).
Olibanum siftings, cs ..... lb. .20 Nom.
tears cs ..... lb. .22 .30
Rosin (see Naval Stores, Protective Coatings Market).
Sterculia (see Gum Karaya).
Tragacanth No. 1 ribbons, cs. lb. 4.50 - 4.70
No. 2, cs ..... lb. 3.50 - 3.75
No. 3, cs ..... lb. 3.25 - 3.40
powd., USP, bbls ..... lb. 1.25 - 1.38
Gypsum plaster of paris, 100-lb paper bgs trucks, dlvd E Y C ton 20.30 - —
Terra alba, don. paper bgs. same basis ton 20.00 - —
works N Y C ton 17.00 - —
imp., English, 100-lb. paper bgs., ex dock N. Y. C ton 55.00 —
ex warehouse ton 60.00 -62.00

H

Hawthorn berries, bgs ..... lb. .21 - —
Heliotropin, 100-lb lots, dms ... lb 3.00 3.25
Hellebore root, dom. green bls lb .70 .75
Helonias root, bls lb 1.75 2.00
Hematine extract, cryst., No. 1, bbls., l.c.l lb. .47 - —
No. 2, bbls., l.c.l ..... lb. .43 - —
No. 3, bbls., l.c.l ..... lb. .41 - —
No. 4, bbls., l.c.l ..... lb. .39 - —
No. 5, bbls., l.c.l ..... lb. .37 - —
paste, No. 1, bbls., l.c.l. ..... lb. .20½ - —
Henbane leaves, bls lb. .35 .40
Heptane, indust., tanks, Bayonne, N. J gal. .19 - —
Baytown, Tex gal. .14¾ - —
Borger, Tex gal. 14¾ - —
Hesperidin, purif., 25 lb. lots, f.o.b., works lb 8.95 - —
Methylchalcone, bots., 50-lb lots, works lb 22.50 - —
5-lb lots, works ..... lb 23.00 - —
1-lb lots, works ..... lb 23.50 - —
Hexachlorophene, dms lb 1.98 - —
Hexalin (see Cyclohexanol)
Hexamethylenetetramine, tech., bgs., 20,000-lb lots or more, Perth Amboy or N Y C lb. .222 - —
1,000-19,999-lb lots same basis lb. .232 - —
smaller lots same basis lb. .242 - —
fib dms. 1,000-lb lots or more, same basis lb. .239 - —
smaller lots same basis lb. .242 - —
USP, dms., 500 lbs. or more, f.o.b. Fords, N. J., dlvd. N. Y. C. and Philadelphia ..... lb. .40½ - —
smaller lots, same basis ..... lb. .41½ - .46⅛
Hexane, indust., tanks, Bayonne, N. J gal. .19 - —
Baytown, Tex ..... gal. .15½ - —
Borger, Tex ..... gal. .15½ - —
1-Hexanol, dms., c.l., works ..... lb. .35 - —
l.c.l., works ..... lb. .35¾ - —
tanks, works ..... lb .35 —
Hexyl cinnamic aldehyde, dms lb. 4.00 - 7.50
Salicylate, dms lb 1.75 - —
Hexylene glycol, dms., c.l., dlvd lb. .17 - —
l.c.l., dlvd ..... lb. .18 - —
tanks, dlvd ..... lb. .14½ - —
α-Hexyl methacrylate, dms., less than truckload works lb. .71 - —
Hexylresorcinol, USP, dms., 50-lb lots or more, dlvd lb 14.00 - —
smaller lots, dlvd lb 14.50 - —
Homatropine hydrobromide, USP bots oz. 5.50 - —
Methylbromide, USP, bots oz. 3.90 - —
Hoofmeal, 17-18% ammonia, bulk, c.l., Chicago unit-ton 6.25 - —
Horehound herb, bls lb. .16 - .19
Hydrastis (see Goldenseal)
Hydrazine, free base, ret., dms., works lb No stocks.
Hydrate, 85%, ret., dms., works lb. 1.35 - 1.55
100%, ret., dms., works lb. 1.60 - 1.90
Hydrocortisone acetate, bulk, bots. up to 500 gms gm. 4.75 - —
Alcohol, bulk, bots., up to 500 gms gm. 4.75 - —
Hydrofuramide, dms., fib cans., works lb. .30 - .40
Hydrogen chloride, anhyd., 50-lb. cyls., c.l., works lb. .45 - —
l.c.l., works ..... lb. .55 - .60
Fluoride, anhyd., cyls., dlvd. E lb. .30½ - .32⅛
dlvd W ..... lb. .39 - —
tanks, works ..... lb. .21 - —
Peroxide, USP, bbls., dlvd ..... lb. .03¾ - .05
35%, dms., c.l., dlvd ..... lb. .202 - —
l.c.l., dlvd ..... lb. .211 - —
tanks, dlvd ..... lb. .1800- —
Hydroquinone, photo grade, bbls., dms. lb. 1.03 - 1.06
tech., dms., c.l., dlvd ..... lb. .82½ - —
l.c.l., dlvd ..... lb. .84½ - —
Hydroxycitronellal, cns ..... lb. 6.00 7.45
Hyoscine salts (see Scopolamine)
Hyoscyamine hydrobromide, bots. oz. 6.00 - 7.00
Sulfate, bots ..... oz. 6.75 - 7.25
Hypernic extract, cryst., No. 2, bbls., l.c.l lb. .52 - —
liq., No. 1, bbls., l.c.l ..... lb. .35 - —
No. 2, bbls. l.c.l ..... lb. .27 - —

I

Ichthammol, NF, jars ..... lb. .75 2.57
Indian red (see Red, Indian).
Indigo (see Dyes, coaltar, 1171 Indigo synthetic).
Indole, CP, bots ..... lb. 16.50 -21.00
Inositol, bots., dlvd ..... lb 5.00 - —
dms., dlvd ..... lb 4.50 - 4.75
Insect flowers (see Pyrethrum).
Iodine, crude, kgs ..... lb. 1.10 - —
resub., USP, dms., jars ..... lb. 2.30 2.32
Iodochlorohydroxyquinolin, USP, dms lb 5.90 - —
Iodoform, NF, dms., kgs ..... lb 4.90 5.00
a-Ionone, cns ..... lb 5.25 5.40
b-Ionone, cns ..... lb 5.40 - 5.70
Ipecac root, bgs., whole ..... lb 7.50 - —
powd., bbls., bxs ..... lb 7.85 - —
Irish moss, bleached, prime, bls lb .28 - .34
Iron compounds (see Ferric or Ferrous). Oxides (see under Black, Brown, Red, and Yellow).
Isoborneol, cns ..... lb. 1.25 1.70
Isobornyl acetate, cns ..... lb. .46 - .70
Formate, dms ..... lb. .80 - —
Propionate, dms ..... lb 1.15 1.45
Isobutyl acetate, perfume grade, cns lb. .75 1.00
solvent grade, dms., c.l., dlvd E. of Rockies lb. .14¾ - —
l.c.l., same basis ..... lb. .15¾ - —
tanks, same basis ..... lb. .12¼ - —

Isobutyraldehyde, CP, dms., c.l., dlvd.	lb.	.27½- —
l.c.l., dlvd	lb.	.28½- —
tech., dms., c.l., dlvd	lb.	.21½- —
l.c.l., dlvd	lb.	.22½- —
tanks dlvd	lb.	.19½- —
Isoeugenol, cns	lb.	3.60 - 4.40
Isoniazid, powd., bulk, 25-kilo lots or more	kilo.	23.00 -25.50
smaller lots	kilo.	24.00 -26.00
Isopentane, coml. grade, tanks, f.o.b. Tex, refy	gal.	.15½- —
Isonicotinic acid hydrazide (see Isoniazid).		
Isophorone, dms., c.l., works	lb.	.24½- —
l.c.l., works	lb.	.25¼- —
tanks, works	lb.	.22½- —
Isopropanol (see Alcohol, Isopropyl).		
Isopropyl acetate, dms., c.l., dlvd.	lb.	.13½- —
l.c.l., same basis	lb.	.14½- —
tanks, same basis	lb.	.11 - —
Alcohol (see Alcohol, Isopropyl).		
Benzene (see Cumene).		
Ether, dms., c.l., dlvd	lb.	.07 - —
l.c.l. dlvd	lb.	.08 - —
tanks, dlvd	lb.	.05 - —
Isopropyl-N-(3-chlorophenyl) carbamate, (CIPC), 70% in xylol, dms., c.l., t.l., works	lb.	.70 - —
l.c.l., works	lb.	.714 - .814
Isopropylamine (see Mono, Di, or Tri-).		
Isopropyl-N-phenyl carbamate, 450-lb. fib dms, c.l., t.l., works.	lb.	.75 - —
l.c.l., works	lb.	.80 - .90
Isoquinoline, dms., works	lb.	.65 1.25

J

Jalap root, NF, bls	lb.	NP - —
powd., bbls., bxs	lb.	NP - —
Juniper berries, bgs	lb.	.18 - .20
Tar, NF, dms	lb.	.42 - .60

K

Kaolin (see also Clay, China). NF, powd. fib dms	lb.	.10 - .12
colloidal fib dms	lb.	15½- .17½
Kola nuts, bgs	lb.	.15 - —

L

Lactose, edible, fib, dms., 30,000-lb. lots, works	lb.	.15 - .15½
2,000-lb lots, works	lb.	.15¾- .16½
200-1,800-lb. lots, works	lb.	.16¾- .17
Edible lactose in bgs. ½-lc. lower		
Fermentation grade, bgs., c.l., works	lb.	.08½- —
USP fib dms., 30,000-lb. lots, works	lb.	.21½- —
2,000-lb. lots, works	lb.	.22¼- —
200-1,200-lb. lots, works	lb.	.22¾- —
USP lactose in bgs 1c lower.		
Lanolin, cosmetic, dms., works	lb.	.27 - .29
USP, anhyd., dms., works	lb.	.25 - .27
hydrous, dms., works	lb.	.24 - .26
Lard, cash, dms., Chicago	lb.	.1400- —
Larkspur seed, bgs	lb.	.25 - —
n-Lauryl methacrylate, dms., c.l. or t.l. works	lb.	.65½- —
Lavender flowers, medium, bls	lb.	.75 - .80
ord., bls	lb.	.25 - .40
select, bls	lb.	.90 - —
Lead acetate, white, cryst., bbls.	lb.	.25½- —
gran., bbls	lb.	.26½- —
powd., bbls	lb.	.26½- —
NF, cryst., gran., powd	lb.	.36½- —
Arsenate, acid, powder, dealers, 3-lb bgs or larger, c.l., frt alld on 96 lbs. or more	lb.	.27½- —
l.c.l., frt. alld	lb.	.28½- —
1-lb. bgs., c.l	lb.	.41½- —
l.c.l	lb.	.42¼- —
Blue, basic sulfate, bbls., c.l., shipt. point, frt. alld	lb.	.17¼- —
l.c.l., same basis	lb.	.18¼- —
Carbonate (see Lead, white, basic carbonate).		
Chloride, dms	lb.	45 - —
Iodide, NF, V jars	lb.	3.82 - —
Linoleate, fused, 26%% Pb, dms.	lb.	.33 - —
Metal, pigs, prime, N. Y	lb.	.16 - —
St. Louis	lb.	.1580- —
Metallic paste, dms., 20,000-40,000-lb. lots, works	lb.	.33¾- —
10,000-20,000-lb. lots, same basis	lb.	.34¾- —
200-2,000-lb. lots, same basis.	lb.	.35¾- —
Prices ex whse, Jersey City, N. J., 4½c. per lb higher		
Monosilicate, bgs., c.l., works, frt. equald	lb.	.20 - —
l.c.l. same basis	lb.	.2075- —
Naphthenate, liq., 16% Pb., dms., dlvd	lb.	.17 - —
24% Pb., dms., dlvd	lb.	.21 - —
solid, 37% Pb., dms., dlvd	lb.	.27½- —
Nitrate, bbls	lb.	.23¾- —
Orthosilicate-silica gel, 50-60% PbO, dms., works	lb.	.29¾- .34¼
Peroxide, tech., powd., bbls	lb.	.38¾- .40¼
Phthalate, dibasic, dms., works	lb.	.41 - —
Red, 95% Pb_3O_4, or less, bbls., c.l., works, frt. alld	lb.	.19 - —
l.c.l., same basis	lb.	.20 - —
97% Pb_3O_4, bbls., c.l., same basis.	lb.	.192 - —
l.c.l., same basis	lb.	.202 - —
98% Pb_3O_4, bbls., c.l., same basis.	lb.	.1935- —
l.c.l., same basis	lb.	.2035- —
Resinate, precip., 23% Pb, dms., dlvd	lb.	.32½- —
Salicylate, normal, dms., works.	lb.	.46 - —
Silicate (see Lead, white, basic, silicate)		
Sulfate (see Lead, blue, basic sulfate, Lead white, basic sulfate)		
Tallate, liq., 16% Pb, dms	lb.	.15 - —
24% Pb., dms	lb.	.18½- —
solid, 30%	lb.	.23¼- —
White, basic carbonate, bgs., c.l., shipt. point, frt. alld	lb.	.19 - —
l.c.l., same basis	lb.	.20 - —
silicate, bgs., c.l., shipt. point, frt. alld	lb.	.17¼- —
l.c.l., same basis	lb.	.18¼- —
sulfate, bgs., c.l., shipt. point, frt. alld	lb.	.17¼- —
l.c.l., same basis	lb.	.18¼- —
Lecithin, edible, tech., bleached, non-ret., dms., c.l., works	lb.	.14 - .15
l.c.l., same basis	lb.	.16 - .17
unbleached, non-ret., dms., c.l., same basis	lb.	.13 - .14
l.c.l., same basis	lb.	.15 - .16
Lemon bioflavonoid complex, 25-lb. lots, works	lb	9.00 - —
dl-Leucine, dms., works	lb	12.25 -15.00
Licorice root, whole, bbls	lb.	.10 - .12
gran., bbls	lb.	.15 - .17
powd., bbls	lb	.12 - .15
Lignosulfonate, 70% tannin, bgs., c.l., works	lb.	.06½- —
l.c.l., works	lb.	.06¾- —
Lime, chemical (quicklime), bulk, c.l., metropolitan N. Y. destination, freight equalized with nearest producing point	ton.	20.46 - —
Hydrated, bulk, c.l., same basis.	ton.	21.96 - —
Spray, bgs., c.l., same basis	ton.	25.96 - —
Lime salts (see Calcium).		
Lime-ammonium nitrogen 20.5% N (see Ammonium nitrate with dolomite).		
Limestone, grd., bgs., works	ton.	3.50 - 4.00
Linalool, ex bois de rose oil, dms.	lb.	3.65 - 4.80
ex lignaloe wood oil, dms	lb.	5.30 - 7.10
Linalyl acetate, ex bois de rose, 90-92%, dms	lb.	3.30 - 5.10
96-98%, dms	lb.	4.05 - 6.75
ex petitgrain, bots	lb.	4.80 - 5.90
Lindane, 25% formulation, dealers, dms., frt. alld	lb.	1.58 - 1.68
99%, tech., formulators, dms., frt. alld	lb.	2.65 - 3.25
Linden flowers with leaves, bls	lb.	.25 - —
without leaves, bls	lb.	.30 - —
Linseed meal, expeller, 32-34% bulk, Midwest, mills	ton.	60.50 - —
extracted, 36% bulk, same basis.	ton.	51.00 -51.50
Litharge, coml., powd., bbls., c.l., works, frt. equald	lb.	.18 - —
l.c.l., same basis	lb.	.19 - —
Lithium benzoate, dms	lb.	1.65 - 1.67
Bromide, NF, dms., works, frt. equald	lb.	2.45 - —
Carbonate, NF, dms., c.l., t.l., dlvd.	lb.	1.29½- —
ton lots to t.l., dlvd	lb.	1.30 - —
tech., dms., c.l., t.l., dlvd., frt. alld, works	lb.	.82 - —
l.c.l., same basis	lb.	.85 - 1.11½
Lithium chloride, CP, anhyd., ton lots	lb.	1.23½- —
Lithium chloride, tech., anhyd., dms., c.l., t.l., dlvd., or works, frt. alld	lb.	1.00 - 1.05
l.c.l. same basis	lb.	1.05 - 1.05½
Citrate, NF, dms	lb.	1.60 - 1.64
Fluoride, bbls., 10,000-lb. lots, dlvd	lb.	2.17¼- —
ton lots, dlvd	lb.	2.18½- —
less ton lots, dlvd	lb.	2.23½- —
Hydride powd., dms., 500-lots, works	lb.	10.50 -12.50
Hydroxide, monohydrate, dms., c.l., t.l., dlvd or works, frt. alld	lb.	.80 - .80½
l.c.l., same basis	lb.	.81 - .81½
Manganite, dms., works	lb.	.95 - 1.15
Nitrate, tech., dms., 100-lb. lots.	lb.	1.25 - —
Salicylate, dms.	lb.	1.60 - 1.70
Silicate, dms., works	lb.	1.10 - 1.30
Stearate, dms., c.l works	lb.	.47½- —
ton lots, works	lb.	.48½- —
less-ton lots, works	lb.	.53½- —
Sulfate, dms., 100-lb. lots	lb.	1.15 - —
Titanate, dms, works	lb.	1.13 - 1.35
Lithopone, ord., bgs., c.l., dlvd. E.	lb.	.08 - —
l.c.l., dlvd. E.	lb.	.08¾- —
titanated (high-strength), bgs., c.l., dlvd	lb.	.10 - —
l.c.l., dlvd	lb.	.11 - —
Lobelia herb, bls	lb.	1.50 - —
Lobeline sulfate, bots., works	oz.	37.50 -38.50
Logwood extract, cryst, No. 1, bbls., l.c.l	lb.	.41 - —
No. 2, bbls., l.c.l	lb.	.39 - —
liq., No. 1, bbls., l.c.l	lb.	.20 - —
No. 2, bbls., l.c.l	lb.	.19 - —
No. 3, bbls., l.c.l	lb.	.18½- —
solid, No. 1, boxes, c.l	lb.	.35 - —
Lycopodium, cs	lb	1.20 2.00
dl-Lysine monohydrochloride, fib, dms	lb.	12.00 - —
l-Lysine, fib, dms	lb.	12.00 -13.00

M

Mace, Siauw, siftings, bls	lb.	3.25 - —
West Indian No. 1, bls, shipment	lb.	3.25 - —
Magnesia, calcined, tech, bgs., ctns., works	lb.	.25¼ 26
syn. rubber grade, light, bgs., c.l., works	lb.	.29¼ —
extra light, bgs., c.l., works.	lb.	.29¼ .30
l.c.l. works	lb.	.30 —
USP, light, bgs	lb.	.35 - .36
heavy, fib, dms	lb.	.45 - .52
Magnesite, chemical grade, calcined, powd., bgs., c.l., works, frt equald	ton	82.50 - —
dead-burnt, standard grain, bulk, c.l. Chawelah, Wash	ton	40.00 —
Magnesium bromide, jars	lb	90 1.00
Carbonate, tech., bgs., c.l., frt. equald	lb	10½ —
t.l., frt. equald	lb.	.11 - —
t.c.l. frt. equald	lb.	.12 13
USP, bgs., c.l., frt. equald	lb.	.12½- —
t.l. frt equald	lb	.13 —
t.c.l. frt equald	lb	14 15

Above prices are quoted f.o.b. works, freight equalized with metropolitan New York and competitive producing points

IMPARTED

Permanent Flexibility
Low Volatility
Ease of Processing
Heat and Light Stability
Resistance to Extraction by oils, water and soap
Resistance to mildew-type fungi growth

INHERENT

Non-hygroscopic
Compatible
Miscible
Practically odorless
Stable
Practically colorless

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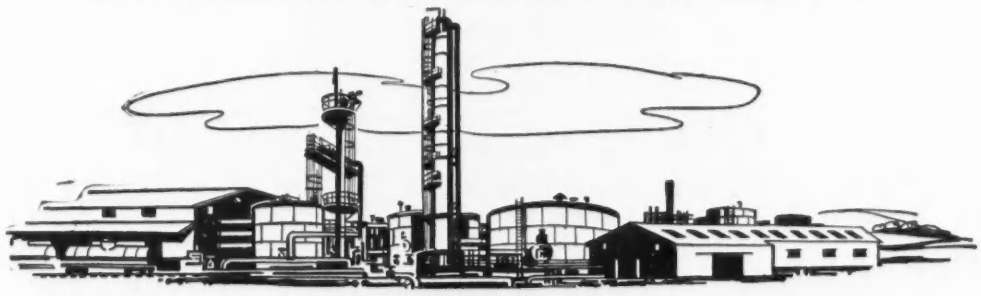
THE NEWEST AND MOST MODERN PLASTICIZER PLANT



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Celluflex 179C—general purpose grade . . . provides the best combination of balanced properties

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Lindol—lowest color tricresyl phosphate produced in commercial volume

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Celanese® Celluflex® Lindol®

Celanese CHEMICALS

Magnesium Chloride—Mica

Magnesium chloride, anhyd., 92% flake or pebble, dms., c.l., works lb. .12¾ - —
l.c.l., works ton. 65.00 - 80.00
Gluconate, dms, cns lb. 1.34 - 1.41
Hydroxide, NF, medicinal, bbls., dms., kgs. lb. .26½ - .30
Metal, 99.8% ingots, 10,000 lb. lots or more, works lb. .36 - —
pigs, 10,000-lb lots or more, works lb. .35¼ - —
sticks, cs., works, frt. alld. on carlots lb. .59 - —
Oxide (see Magnesia, calcined).
Nitrate, cryst., dms., works lb. .29 - —
Peroxide, 15% dms, works lb 1.00 - 1.05
Phosphate, tribasic, NF, bbls lb. .75 - —
Silicate (see Talc)
Silicofluoride, dms., works lb. .10½ - .12
Sulfate, tech, bgs., c.l. works t.c.l. same basis lb. .14 - .15
hydrous, 99% flake, bgs., c.l., works ton. 55.00 - —
100 lbs 2.15 - —
t.c.l. works 100 lbs 2.90 - 3.15
USP, cryst., bgs., c.l., works, 100 lbs. 2.35 - —
t.c.l. 5,000 lbs., 1 withdrawal 100 lbs. 3.10 - —
smaller lots 100 lbs 3.35 - —
Trisilicate, USP, dms., 5,000-lb. lots lb. .38 - —
1,000-lb. lots lb. .40 - —
100-lb. lots lb. .45 - —

Bulky and super grades of magnesium trisilicate 7c. per lb. higher

Malathion, dms., c.l., works lb. .90 - —
l.c.l., works lb. .92 - 1.02
Maleic anhydride, dms., c.l., dlvd. E lb. .27 - .28½
l.c.l., dlvd. E lb. .28 - .29½
tanks, dlvd. E lb. .26 - .27½

Prices on maleic anhydride W. of Rockies, 1½c. higher.

Mandrake root bls lb. .55 - .60
Manganese acetate, bbls, dlvd lb. .35 - —
Arsenate, bgs lb .16 - —
Borate, tech., fib. dms lb. 22 - —
Carbonate, bbls., works lb. 22 - —
Chloride, anhyd., dms., works lb. 25½ - —
Dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined, bgs., gross for net, works ton. 148.00 - —
paper bgs., works ton. 144.50 - —
dms., works ton. 152.50 - —

Prices for manganese dioxide in 10,000 to 40,000-lb. lots $3 per ton higher.

Gluconate, dms lb. 1.80 - 1.94
Hydrate, bbls., dlvd lb .36 - —
Hypophosphite, NF, dms lb 3.52 - —
Linoleate, liq., 4.35% Mp, dms lb. .32½ - —
solid, precip., 8.2% Mn, bbls lb. .37½ - —
Naphthenate, liq., 6% Mn., dms., frt. alld. lb. .27 - —
Resinate, fused, 3½% Mn, dms. lb. .24 - —
precip., 6½-7% Mn, dms lb. .28 - —

Manganese sulfate, fertilizer grade, 65% sulfate, c.l., dlvd, S.E. ton. 88.55 - —
l.c.l., dlvd, S E ton. 95.55 - —
Tallate 6% dms lb .24 - —
Mangrove bark, E. African, 38% tannin, c.l., ex dock ton. 66.00 - —
So. American 30% tannin, c.l., ex dock ton. 55.00 - 58.00
Mannitol, com'l, fib. dms., ton lots, works lb. .60 - —
dms. to ton lots, works lb .62 - —
single dm., works lb 65 - —
MBTS (see Mercaptobenzothiazyl disulfide).
MBT (see 2-Mercaptobenzothiazole)
Melamine, bgs., c.l., works lb. .30 - —
l.c.l., works lb. .31 - —
Menadione USP, bots. gram .044 - .05
Menthol, nat., USP, Brazilian, cs. lb. 6.40 - 6.50
syn. USP racemic, cns lb 4.95 - —
Menthyl salicylate, tins lb 4.00 - 4.25
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots works, frt. alld lb. .42 - —
less ton lots, same basis lb. .44 - —
Mercaptobenzothiazyl disulfide, bgs., fib dms., ton lots works, frt. alld lb. .52 - —
less ton lots, same basis lb. .54 - —
Mercuric chloride, NF, cryst., dms., 50-lb lots or more lb. 4.98 - —
gran. or powd., dms., 50-lb. lots or more lb. 4.78 - —
Cyanide, NF, VIII, powd., fib. dms. lb. 6.84 - —
Iodide, red, NF, fib dms lb 7.72 - —
Oxide, red, NF, powd., fib. dms lb 5.97 - 6.01
Yellow, tech. (see Yellow mercury oxide), USP, fib. dms lb. 6.14 - —
Mercurous chloride (see Calomel).
Iodide, yellow, NF lb. 7.72 - —

Mercury, ammoniated (see White precipitate USP)
Metal, 76 lb. per flask, net-flask. 255.00 - 257.00
Mesityl oxide, dms., c.l., dlvd. lb. .14 - .14½
l.c.l., dlvd lb. .15 - .15½
tanks, dlvd lb. .11½ - .12
Meta aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline).
Metanitroaniline (see m-Nitroaniline)
Metanitroparatoluidine (see m-Nitro-p-toluidine).
Metaphenylenediamine (see m-Phenylenediamine).
Metatoluidine (see m-Toluidine)
Metatolylenediamine (see 2,4-tolylenediamine).
Methanol, nat., denaturing grade, tanks, frt. alld gal. 75 - —
syn., Zone 1, dms., c.l., dlvd. or truckload min. frt alld. gal. .46 - —
l.c.l., same basis gal. .53 - —
tankwagon, 2,000-4,000 gal. lots, dlvd Metropolitan area gal. .33 - —
4,000 gal. min., frt alld. or dlvd gal. .30 —
4,000 gal., min., works, Carteret, Camden N J gal. 27½ - —
Zone 2, dms. c.l., or truckload min. frt. alld. or dlvd gal. .49 - —
l.c.l., same basis gal. .56 - —
tankwagon 2,000-4,000-gal lots, min. dlvd Metropolitan areas gal. .36 —
tanks, 4,000 gal., min., frt, alld. or dlvd gal. .33 - —

Synthetic methanol zones are: Zone 1 is all continental U S E of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of U S west of above state boundaries comprising Ariz. Calif. Idaho Nev. Ore., Utah and Wash.

Methenamine (see Hexamethylenetetramine).
Methionine fib. dms., frt. alld. 50-lb or more lb 3.50 —
feed grade, 98% fib dms., same basis lb. 2.65 —
Methoxychlor, 50% wettable powder, dealers dms., cs. frt alld lb. 61 64
Methyl abietate, non-ret, dms., c.l., dlvd zone 1 lb .20½ - —
t.c.l. same basis lb .21 —
hydrogenated, non-ret., dms., c.l., dlvd, Zone 1 lb. .21 - —
t.c.l. same basis lb 21½ —

Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich. Ind. Ill. Wis. St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss. Ala. Ga. Fla., S. C. and Tenn.

Acetone, nat., dms., l.c.l., E. of Miss., frt. alld gal. .62½ - —
syn., dms., c.l. frt. alld. E gal. .63½ - —
l.c.l., frt. alld. E lb. .69½ - —
tanks, frt alld. E gal. .48½ - —

Synthetic methyl acetone E territory is all States East of and including Colo., Mont., N. Mex. and Wyo. West territory all states west of those four.

Acrylate, dms., c.l., t.l., dlvd lb. .39 - —
t.c.l. dlvd lb. .40 - —
tanks, dlvd lb. .37 - —
Alcohol (see Methanol).
Amyl acetate, dms, c.l., dlvd E. lb. .16 - —
t.c.l. dlvd E lb. .17 - —
tanks, dlvd E lb. .13½ - —
Ketone, dms., works lb 1.05 —
Anthranilate, cns lb 2.35 2.65
Benzoate, cns., dms lb. 60 75
Bromide, fobbers, cyls., various sizes, frt alld E lb. .47 61
Cellulose, special vis. (1,500-4,000 cps.), 50 lb. bgs, c.l., works lb. .78 - —
2,000-lb. lots and more, same basis lb. .65 —
smaller lots, frt. alld. on 100 lbs lb. .89 1.00
standard vis. (15,400 cps.), 50-lb. bgs., c.l., frt. alld lb. .60 - —
2,000-lb lots and more, same basis lb. .72 —
smaller lots, frt. alld. on 100 lbs lb. .75 .85
Chloride, indust., cyls., frt. equald, lb. .22 - —
tanks, multi-unit, same basis, lb. .13¾ - —
single unit, same basis lb. .12 - —
refrigerator mfrs., cyls., dlvd. lb. .46 48
other consumers or service men, cyls., dlvd lb. .67 —
Chloroform (see 1,1,1-trichloroethane),
Cinnamate, cns lb. 1.55 1.80
Cyclohexanol, dms., c.l., works lb. .35½ - —
t.c.l. works lb. .36 - —
tanks works lb. .34 - —
Ethyl ketone dms., c.l., dlvd. lb. .14½ - —
l.c.l., dlvd lb. .15½ - —
tanks, dlvd lb. .12 - —
Formate, refd., dms lb. .35 - 40
tech., non-ret. dms., any quantity, works lb. .10 —
Heptin carbonate, bots lb. 31.00 - 42.00
p-Hydroxybenzoate, fib dms lb 1.90 2.00
Ionone, standard, cns., dms. lb. 5.00 5.25
Isobutyl carbinol, dms., c.l., dlvd. lb. .16½ - —
l.c.l., dlvd lb. .17½ - —
tanks, dlvd lb. .14 - —
ketone, dms., c.l., dlvd lb. .16½ - —
l.c.l., dlvd lb. .17½ - —
tanks, dlvd lb. .14 - —
Methacrylate, dms., c.l., t.l., frt. equald, with Melle, W. Va. lb. .31 - —
smaller lots, same basis lb. .31½ - —
tanks, same basis lb. .29 —
Naphthyl ketone, cryst., cns lb. 3.00 4.30
Parahydroxybenzoate (see Methyl p-Hydroxybenzoate)
Roseaniline chloride, NF, fib. dms., 5-lb. dms. lb. 6.54 - —
Salicylate USP cns., 500-lb. lots lb. .59 - —
Testosterone, USP, 100-gram bots. gram. .68 - —
2-Methylbenzylamine, dms., l.c.l, works lb. 1.25 - —
2-Methylbenzyl dimethylamine, dms., c.l., works lb. 1.89 - —
l.c.l., works lb. 1.90 - —
2-Methyl-5-ethyl pyridine, dms., c.l., works lb. .445 - —
l.c.l., works lb. .45 - —
tanks, works lb. .43 - —
Methylene blue, fib. dms., 100-lb. lots, frt, adjusted lb. 3.40 - —
Chloride, tech., dms., c.l., dlvd. E. lb. .13¼ - —
l.c.l., same basis lb. .16 - —
tanks, same basis lb. .11¾ - —
b-Methylnaphthalene, 32°C. m.p., dms., works lb. .90 - —
Methylpentanediol (see Hexylene glycol).
Methylphenylpyrazolone (see 1-Phenyl-3-methylpyrazolone-5).
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint plastic, 100 mesh, bgs., c.l., works lb. .04 - —
roofing, 20 to 80 mesh, works lb. .03 - —
wet-grd., biotite, bgs., c.l., works, frt. alld. E lb. .06½ - —
t.c.l., ex-whse lb. .07¼ - —

CSC NITROPARAFFINS

NITROMETHANE
CH_3NO_2

NITROETHANE
$CH_3CH_2NO_2$

1-NITROPROPANE
$CH_3CH_2CH_2NO_2$

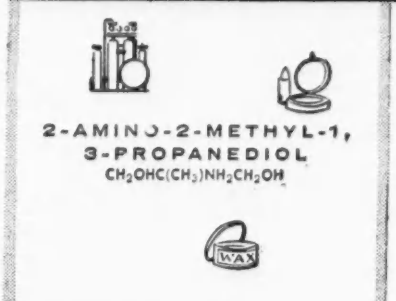
IMPROVING PROCESSES AND PRODUCTS

2-NITROPROPANE
$CH_3CHNO_2CH_3$

2-AMINO-2-METHYL-1-PROPANOL
$CH_3C(CH_3)NH_2CH_2OH$

TRIS (HYDROXYMETHYL) AMINOMETHANE
$(CH_2OH)_3CNH_2$

FOR AMERICA'S MAJOR INDUSTRIES



2-AMINO-2-METHYL-1, 3-PROPANEDIOL
$CH_2OHC(CH_3)NH_2CH_2OH$

HYDROXYLAMMONIUM ACID SULFATE
$NH_2OH \cdot H_2SO_4$

ALKATERGES

Nitroparaffins and their derivatives are economical, effective, versatile chemicals for such uses as solvents . . . prime ingredients . . . raw materials . . . sensitizers . . . emulsifiers . . . analytical reagents . . . reducing agents . . . inhibitors . . . short-stoppers . . . surface activants . . . dispersants . . . anti-foamants.

In a relatively short time, the members of the nitroparaffin family found wide use in many important industries.

New groups of derivatives are being studied continually for new and profitable applications. Steadily increasing quantities of these unusual chemicals are being shipped from CSC's plant in Sterlington, La.

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CSC INDUSTRIAL CHEMICALS

Mica, wet-grd., paint or lacq., bgs., c.l., 325 mesh, works, frt. alld.E lb. .08¼- —
t.c.l. ex-whse or frt alld. E lb .09 —
rubber, bgs., c.l., works, frt. alld. E lb. .08 - —
t.c.l. ex-whse or frt alld. E lb .08¾ —
wallpaper, bgs., c.l., works, frt. alld. E lb. .08¾- —
t.c.l. ex-whse or frt alld. E lb. .09 —
white, 5-10 microns, bgs., c.l., works, frt. alld. E lb. .08¼- —
t.c.l. ex-whse or frt alld. E lb .09 —
Mica, wet-grd. W of Miss ½c higher; W of Rockies 1c higher

Mineral spirits (see Petroleum mineral spirits).

Molasses blackstrap feed grade, tanks, New Orleans gal. .28 - —
New York gal. .29 - —

Molybdenum (metal), powd. 80 or 200 mesh ctns works kilo 7.84 —
325 mesh ctns works kilo 9 13 —
Trioxide, pure, dms., works lb. 1.15 - —
tech dms works basis Mo content lb 1.39 —

Monobutylamine dms. c.l. E of Rockies lb. .55½ —
t.c.l., same basis lb. .56½- —
tanks, same basis lb .52 —

Monochlorobenzene, dms. c.l., frt alld or dlvd E lb .10 —
t.c.l. same basis lb .11 —
tanks, same basis lb .08½ —

Monoethanolamine dms. c.l. dlvd E lb .27½ —
t.c.l. same basis lb .28½- —
tanks, same basis lb. .25 - —

Monoethylalphanaphthylamine (see N-Ethyl-a-naphthylamine)

Monoethylamine 70% contained amine dms., c.l., dlvd E lb. .37½- —
t.c.l., dlvd E lb. .38½- —
tanks, dlvd E lb. .35 - —

Monoethylaniline (see N-Ethylaniline)

Monoethylorthotoluidin (see N-Ethyl-o-toluidine).

Monoisopropanolamine dms. c.l. dlvd E lb. .27½- —
t.c.l., same basis lb. .28½- —
tanks, same basis lb 25 —

Monoisopropylamine dms. c.l. dlvd. lb. .32½- —
t.c.l. same basis lb. .33½- —
tanks same basis lb 30 —

Monomethylamine, 30-35% soln., dms. c.l. frt equald 100% basis. lb 40 —
t.c.l. frt equald 100% basis. lb 40½- —
tanks frt equald 100% basis. lb .31 —

40% soln., dms., frt. equald., 100% basis lb. .37 - —
t.c.l. frt equald 100% basis. lb .37½- —
tanks frt equald 100% basis. lb. .31 —

Monosodium fluoroacetate (see Sodium fluoroacetate monobasic).
Glutamate (see Sodium glutamate monobasic)
Phosphate (see Sodium phosphate monobasic).

Mono-tertiary butylmetacresol (see 6-tert-Butyl-m cresol)

Morphine cns oz 12.40 12.60
Acetate anhyd. cns oz 9.95 10.00
Hydrobromide, cns oz 9.90 9 95
Hydrochloride NF cns oz 9.90 9 95
Sulfate USP cns oz 9.90 10.05

Morpholine, dms., c.l. dlvd E lb. .55¼- —
t.c.l., dlvd E lb. .56¼- —
tanks dlvd E lb 52¾ —

Musk syn ambrette, 100-lb lots, fib. dms lb. 4.45 5.15
25-lb. lots cns lb 5.05 5.65
5-lb lots, cns lb. 5.20 5.50
ketone, 100-lb. lots, fib. dms lb. 4.70 5.30
25-lb lots cns lb 5.35 —
5-lb lots, cns lb 5.45 —
xylol, 100-lb lots, fib. dms lb. 1.40 - —
25-lb lots, cns lb 1.45 - —
5-lb lots, cns lb 1.50 - —

Mustard seed, Danish, yellow, bgs lb 10½- —
Du ch, bgs. lb. .10½- —
English, yellow, bgs. lb. .11 —
Montana, oriental, bgs lb. .08½ Nom.
Yellow, bgs lb. 10½ —

Myrobalans, J-1, genuine, bgs., ex-dock ton. 63.00 -64.00
crushed, bgs. ex dock ton 79 00 -80 00
Bombay, bgs., ex dock ton 61.00 -62.00
Extract, Indian, solid, 55% tannin, bgs., ex dock, plus duty lb. .10 .10¼

N

Naphtha, painters (see Petroleum naphtha V. M. & P.)
Solvent (see S)

Naphthalene crude dom., 74°, tanks, frt equald lb. .06¼- —
78° bgs. c.l., same basis lb. .07½- .08
t.c.l., same basis lb. .07¾- .08¼
tanks, same basis lb. .07 —
Imp., 78° bgs., large lots lb. .05 Nom.
refd., indust., chipped, crushed, bgs., frt. alld lb. .12½- —
tanks, same basis lb. .11¾- —
balls, flakes, wholesalers, jobbers, bbls., c.l., same basis, lb. .15½- —
cs. 50 lbs., c.l., same basis lb. .15¾- —
1-lb. pkgs., c.l., same basis lb. .18½- —

a-Naphthol bbls. frt. alld lb. 1.00 - —

b-Naphthol, tech., flake, bbls., c.l., works lb. .33 - —
t.c.l., works lb. .35 - —
Benzoate, fib dms., works lb 3.00 - —
custom contract, works lb 1.65 - —
Salicylate dms lb 5.00 - —
Sulfate cns lb.35 00 - —

a-Naphthylamine bbls. frt. alld lb 50 - —

b-Naphthylamine tech. flake, bbls., works lb. 1.60 - —

Neocinchophen USP dms., frt. adjusted lb. 7.00 - 8.00

Neomycin sulfate, fib. dms., 5 kilo lots, basis, activity gram. .45 - —
100-999 gram lots, basis, activity, gram. .55 - —

Nerolin, cns lb. 2.45 - 2.65
Niacinamide (see Nicotinamide).
Nickel acetate, bbls. dlvd lb. .77 .90¼
Carbonate bbls. dlvd lb. .73¾- .81¾
Chloride bbls. dlvd lb. .38½- .46½
Formate bbls., ton lots, frt. alld lb. .68 .69
Metal, electro cathodes, cs., works lb. .74 - —
Nitrate, bbls. works lb. .37 - .38
Oxide, black, bbls lb. 76 - —
green bbls. lb. 76 - —
Sulfate, bgs., c.l., dlvd lb. .30¼- —
t.c.l. dlvd lb. .31¼- .38¼
Nicotinamide USP dms., frt. adjusted kilo. 12.00 -12.30
Hydrochloride dms. frt. adjusted. kilo. 11.50 -11.80

Nicotine sulfate, 40%, dealers, 50-lb. dms., frt. alld lb. 1.20 - —
manufacturers, 500-lb. dms., frt. alld lb. 1.05 - —
Niger seed, bgs lb. .12 - .12½
Nikethamide, cbys lb. 7.50 —
m-Nitroaniline, cryst. dms. frt. alld. lb. 1.15 - —
paste, dms., frt. alld., 100% basis. lb 1.10 - —
o-Nitroaniline, flaked, dms., t.l., frt. alld lb. 49 - —
t.t.l., frt. alld lb. 51 - —
p-Nitroaniline, dms. frt alld lb 445 —
Nitrobenzene, dbl dist., dms., c.l., frt. alld lb. .14 - —
t.c.l., frt. alld lb. .15 - —
tanks, frt. alld lb. .12 - —
Nitrocellulose, ester soluble, 30-35 cps., ¼, ½ ¾, 5-6, 15-20, 30-40, 60-80, 125-175, secs., bbls., c.l., works lb. .34 —
t.c.l., same basis lb. .35 37
18-25 cps. bbls. c.l., same basis lb. .36 —
t.c.l., same basis lb. .37 39
250-400, 600-1,000 secs., bbls., c.l., same basis lb. .39 —
t.c.l., same bassi lb. .40 42
spirit-soluble, 30-35 cps., ¼, ½, secs., bbls., c.l., same basis lb. .41 —
t.c.l., same basis lb. 42 44
5-6 cps., 40-60 secs. bbls., c.l., same basis lb 40 —
t.c.l., same basis lb 41 43
Denatured alcohol used in the manufacture of nitrocellulose is charged extra Drums extra but returnable
p-Nitrochlorobenzene dms. c.l., frt alld lb 15 —
t.c.l. same basis lb 16 —
tanks, same basis lb 13 —

p-Nitrochlorobenzene, dms lb .26 .27
2-Nitro-4-chlorophenol dms lb. 75 —
Nitroethane, dms., c.l. dlvd. E lb .24 —
t.c.l. dlvd E lb. 24¾- —
tanks, dlvd E lb. 22½- —
Nitroethane prices West of Rockies are 1c. higher.
Nitrogen solutions, tanks frt. equald. unit. 1.14 - —
Nitrogenous process tankage, bulk works unit-ton 3.00 4.00
Sewage sludge, bulk, works, unit-ton. 2.95+ .50
Nitromethane, dms., c.l. dlvd E lb .24 —
t.c.l. dlvd E lb .24¾- —
tanks dlvd E lb 22½- —
Nitromethane prices West of Rockies are 1c. higher
a-Nitronaphthalene bbls. frt. alld. lb. .41 - —
Nitropropane-1 and -2, dms., c.l., dlvd E lb .22½- —
t.c.l. dlvd E lb. 23¼- —
tanks dlvd E lb. 21 - —
Nitropropane prices West of Rockies are 1c. higher.
o-Nitrophenol, dms. works, frt. equald lb. .94 - —
p-Nitrophenol, dms. frt. alld. c.l. lb. .51 - —
t.c.l., lb 53 - —
o-Nitrotoluene, dms. c.l. frt. alld. lb .10 - —
t.c.l. frt alld lb 11 - —
tanks frt alld lb 09 —

m-Nitro-p-toluidine, dms lb 1.59 - —
Nitrous ether conc., nots 100-lb. lots lb 1.28 1.35
Nonyl phenol dms. c.l., frt. alld. lb. 26½- —
t.c.l. frt. alld lb. 27½- —
tanks, frt alld lb .24½- —
Nutgalls, Aleppo bgs lb .36 .38
Chinese bgs lb No prices.
Nutmeg, East Indian, bgs lb. 2.80 - —
West Indian, bgs lb. 2.80 - —
Nux vomica bls lb 10 - 12
powd. bbls. bxs lb 15 .17

O

Octane, indust., tanks Bayonne, N. J gal. .19 - —
Baytown Tex gal. 15¾- —
Borger, Tex gal. 15¾- —
1-Octanol tech. dms., c.l., dlvd. lb .35 —
t.c.l. dlvd lb .37 - —
tanks, dlvd lb .32½- —
Octyl phenol, bgs., c.l., works lb. .24 - —
t.c.l., works lb. .24½ —
tanks, works lb. .23 —
Drum prices for octyl phenol are 1½c higher.

(Essential oils prices listed below are f.o.b. New York, with differences between high and low quotations due to differences in quantity quality or in individual suppliers. views.)

A NEW Member of An OLD Family of Fine Citrus Products . . .

M. C. P.

Pure
Unadulterated
California

LEMON OIL
U. S. P.

An *Exclusively First Grade Lemon Oil* . . . Cold Pressed in California . . . and *Packed by the Producer* to Assure Highest Quality

For nearly 30 years, Mutual Citrus Products Co. has been cold-pressing California lemon oil for distribution by others. Now, M.C P. LEMON OIL, *prepared and packed* under the M.C.P. label . . . *in first grade only* . . . joins the family of fine M.C.P. Brand citrus products – pectins, juices, concentrates, etc. – which have long made the M.C.P. label a symbol of highest quality and dependability.

Produced and Packed by

MUTUAL CITRUS PRODUCTS COMPANY
Since 1928 Growers and Processors of Citrus Products

Distributed by

MUTUAL CITRUS PRODUCTS CO.
424 South Atchison Street, Anaheim, Calif.

W. J. BUSH & CO., INC.
137 Boston Post Road, Cos Cob, Conn.

Oil, abies, siberica, cns. lb. 4.00 - —
Almond artif. bitter (see Benzaldehyde)
nat. bitter, F.P.A., bots lb 3.00 3.75
NF, bots. lb 3.25 3.75
sweet, USP, cns. dms lb. 1.25 —
Allspice (see Oil, pimento).
Amyris, dms. lb 1.25 —
Angelica root, bots. lb.66.00 -100.00
seed bots lb 56 00 65 00
Aniline (see A).
Anise, USP dms lb 3.50 4.00
Apricot, kernel, USP dms lb .48 .65
Avocado cns lb 3.25 —
Bay, NF, Puerto Rican, 50-55%, cns lb 2.15 3.00
55-60%, cns lb. 2.50 3.00
West Indian 50-55% cns. dms. lb 1.85 2.40
Bergamot, nat., NF Italian, cns lb.10.00 - —
Birchtar, crude, cns lb 1.50 1.90
rectified, cns. lb. 1.75 - —
Bois de rose, Brazil, dms lb. 3.50 - —
Mexican (see Oil, lignaloe wood)
Bone, dms., works lb. .65 - .70
Cajeput, native, cns. lb. 1.75 - 3.30
redist., USP, cns lb 2.25 3.40
Calamus bots lb.12.00 -20.00
Camphor, sassafrassy, dms. lb. .30 - .45
white, dms lb .29 —
Cananga, native, cns. lb. 8.50 8.75
rectified, cns lb.10.00 -13.00
Caraway, NF, cns lb. 3.65 - 4.00
Capsicum (see Capsicum oleoreson.
Cardamom, NF, bots lb.36.00 -40.50
Cassia, USP (see Oil, cinnamon, USP).

Oil, castor, dom. blown, dms., c.l. lb. .2800- —
l.c.l. lb. .2900- —
dehydrated, bodied, dms., c.l. lb. .2960- —
l.c.l. lb. .3060- —
tanks lb. .2760- —
unbodied, dms., c.l. lb. .2810- —
l.c.l. lb. .2910- —
tanks lb. .2610- —
hydrogenated, bgs., ton lots lb. .3325- —
l.c.l., dlvd lb. .3525- —
No. 1, dms, c.l. lb. .2450- —
l.c.l. lb. .2550- —
tanks lb. .2250- —
No. 3, tech., dms., c.l. lb. .2275- —
l.c.l. lb. .2400- —
tanks lb. .2100- —
USP, dms., c.l. lb. .2600- —
l.c.l. lb. .2700- —
tanks lb. .2400- —
refined, deod., dms., c.l. lb. .29 - —
l.c.l. lb. .30 - —
imp., No. 1, Brazilian, tanks lb. .2250- —
Sulfonated, 50%, dms., works lb. .15¼- .15½
75%, dms., works lb. .20 - .20½
Cedarleaf, USP, XIII, cns., dms. lb. 3.65 - —
Cedarwood, cns., dms lb. .65 - 1.00
Celery seed, bots. lb.15.00 - —
Chamomile, blue, Hungarian, bots. lb.225.00 - —
Chenopodium, NF, cns lb. 4.50 - 4.75
Chinawood (see Oil, tung).
Cinnamon, bark, bots lb.36.00 -70.00
leaf, crude, dms lb. 1.60 - 2.00
USP cns., dms. (Cassia) lb.10.25 -10.90

Oil, citronella, Ceylon, cns., dms. lb. .90 - —
Java, cns. lb. 1.95 - —
Java-type, cns. lb. 1.50 - —
Clove, bud, USP, cns., dms. lb. 2.85 - 2.90
leaf crude, dms lb. 1.20 1.50
Coconut, crude, tanks, N. Y. lb. .12⅞- —
Pac. coast lb. .11½- —
refd. Cochin type, dms., tax incl., lb. .19¼- .19½
deodorized, tax incl., dms. lb. .22¼- .23¼
Cod, Newfoundland, dms. lb. .11⅜- .11⅞
Codliver, USP, dms gal. 1.45 - 1.55
Copaiba, cns. lb. 1.75 - 2.50
Coriander, USP, bots. lb.10.50 - —
Corn, crude, tanks, works lb. .14¼- —
foots (soapstock), acid 95%, tanks, N. Y. lb. .06¼- —
refd., salad, dms lb. .1984- .2010
tanks lb. .1784- —
Costus, bots. oz. 8.00 - —
Cottonseed, crude, tanks, South East lb. .13¾ Nom.
Valley lb. .13¾- —
Texas, Lubbock lb. .13⅞- —
Waco .14⅛- —
foots (soapstock), acid 95%, tanks, N. Y. lb. .05 - —
refd., salad, dms lb. .19½- .19¾
tanks lb. .17½- —
Creosote (see Creosote, coaltar).
Cubeb, cns lb. 4.10 - 4.25
Cumin, bots., cns. lb. 4.75 - 5.00
Cypress, bots lb. 5.30 - —
Degras (see D).
Dillseed, bots lb. 2.80 - 4.25
Dillweed, dom., bots., dms lb. 3.25 - 4.25
Dip (see D)
Erigeron, cns lb. 5.50 - 7.50
Eucalyptus, NF, rect., 70-80% dms. lb. .62 - —
80-90%, dms. lb 72 - —
Fennel, sweet, USP, cns. lb. 2.85 - —
Fir, Canada, cns lb. 4.75 - —

Oil, fish, refd., alkali, dms. lb. .1450- .1500
kettle-bodied, dms. lb. .1680- .1730
light-pressed, dms. lb. .1300- .1350
tanks lb. .1150- —
Fishliver, crude for feeds or concentrating 4,000 to 12,000 A units per gram, dms., 1,000,000 units. .08 - .09
10,000 to 20,000 A units per gram, dms., 1,000,000 units. .09 - .10
25,000 to 35,000 A units per gram, dms., 1,000,000 units. .09 - .10
40,000 to 55,000 A units per gram, dms., 1,000,000 units. .10½- .11
100,000 A units per gram., dms 1,000,000 units. .14 - —
200,000 A units per gram., dms 1,000,000 units. .15½- —
500,000 A units per gram., dms 1,000,000 units. .16 - —
Prices above are based on the USP XIV method of conversion, Morton Stubbs Corrected E s 1900
Fusel (see F).
Garlic, pure, bots. oz. 4.75 - —
Gaultheria (see Oil, wintergreen)
Geranium, Algerian, cns lb.13.50 -14.50
Bourbon, cns lb.14.25 - —
Turkish (see Oil palmarosa)
Ginger, dist., bots. lb.20.00 -23.00
Grapefruit, dms lb. 1.65 - —
Grease, No 1, dms., c.l. lb .15¼- —
l.c.l. lb. .16¼- .18¼
extra, winter, strained dms., c.l. lb. .17¼- —
prime, burning, dms, c.l lb. .18¾- —
l.c.l. lb. .19¾- 21¼
Guaiacwood, cns. lb 1.60 - —
Hemlock, cns. lb. 2.10 - 2.50
Juniper berry, bots. lb. 2.75 - 4.00
lb. 2.75 - 4.00
twice rectified, bots lb 3.60 7.00
Tar, NF (see Juniper tar)
Wood, tech., cns. lb .38 - .55
Lard (see Oil, grease).
Laurel leaf, dms., cns lb. 9.75 -12.50
Lavandin, dms., cns lb. 2.55 - 2.95
Lavender, flower, USP, French, 35-37% ester, cns lb. 7.00 - —
38-40% ester, cns lb. 9.25 -10.00
40-42% ester, cns lb.10.00 -14.00
spike, Spanish, cns lb. 2.60 - —
Lemon, USP, Calif., cns., dms lb. 4.25 - 5.00
Messina, cns lb. 5.75 - —
terpeneless, bots. lb.50.00 -85.00
Lemongrass, cns., dms lb. 1.65 - —
Lime, dist., Mexican, cns. lb. 4.75 - —
West Indian, cns lb. 4.75 - —
expressed, West Indian, cns lb. 6.00 - 8.00
terpeneless, bots. lb.30.00 -85.00
Lignaloe wood, Mex., cns. lb. 4.65 - 5.00
Linseed, raw, dms., c.l., N. Y. lb. .1700- —
l.c.l. lb. .1800- .1830
tanks, f.o.b. Minneapolis lb. .1370- —
New York lb. .1500- —
tankwagon, New York lb. .1530- .1540
Boiled linseed oil 006c per lb higher.
Mace, dist., cns., dms lb.11.00 - —
Mandarin (see Oil tangerine)
Menhaden crude, tanks, works, Atlantic & Gulf lb. .09¾- .10
Mineral, white (see Oil, white mineral).
Mirbane (see Nitrobenzene)
Mustard seed, nat., dms. lb. .17½ Nom.
syn., bots lb. 1.60 - 1.85
Neatsfoot, 15° cold test, dms lb. .30 - .33
20° cold test, dms lb. .29 - .32
30° cold test, dms lb. .28 - .31
Neroli, NF, French bots lb.575.00 - —
Nutmeg, USP, dist., East Indian, cns., dms lb.14.50 - —
West Indian, cns., dms lb.14.50 - —
Ocotea cymbarum, dms lb .50 - .60
Oiticica, liq., dms. lb. .17 - .17½
tanks lb. .15½- .15¾
Oleo, extra, dms. lb. .19 - .19½
Olibanum, bots lb. 5.50 - 7.65
extra fine, bots lb. 8.00 - 9.00
Olive, edible, Spanish, dms., duty-paid gal. 3.50 - 3.60
Orange, expressed, USP, Brazilian, cns., dms lb. No stocks.
Calif., cns., dms lb. .60 - 1.75
Florida, cns., dms lb. .50 - .60
Messina, cns. lb. 3.85 - 5.85
West Indian, cns., dms. lb. 2.50 - 3.65
sesquiterpeneless, bots. lb.65.00 -120.00
Origanum, Spanish, cns lb. 2.00 - —
Palm, clarif., dms lb. .15¾- .16¾
Palmarosa, cns lb. 8.25 - 9.00
Paraffin, pale, 100-110 vis., at 100°F tanks, East Coast refy gal .14 - —
Patchouli, dms lb. 6.00 - —
Peach kernel, USP (see Oil apricot kernel).
Peanut, crude, tanks, f.o.b. mills. lb. .19¼- —
refd., dms. lb. .24¾- .25
tanks lb. .22¾- —
Pennyroyal, USP, imported, cns. lb 2.75 3.50
Peppermint, nat., dms lb. 4.75 - 6.50
redist., USP, dms. lb. 5.25 - 6.75
Persic, USP (see Oil, apricot kernel).
Petitgrain, South American, cns., dms. 3.00 - —
Pimento, berry, NF, dms. lb. 4.50 - 5.00
leaf, cns. lb. 2.05 - 2.60
Pine, dest.-dist., dms., l.c.l., works. lb. .12¼- —
ex whse. lb. .14¼- —
steam-dist., dms., ex whse. N.Y.C lb. .176 - —
dlvd. lb. .179 - —
Pineneedle, Siberian (see Oil, abies siberica).
Rapeseed, tankcars lb. .18¾- —
Red (see Acid, oleic).
Rice bran, clarif., dms., l.c.l lb. .18 Nom.
tanks, dlvd, E lb. .15 - .15½
Rose, nat., Bulgarian, bots oz.43.00 -57.00
Rosemary, Spanish, N.F., cns., dms lb. .60 - 1.00
tech., cns. dms lb. .50 - .70
Rue, bots lb. 2.00 - 2.50
Safflower, dms., N. Y. lb. .1785- .1838
tanks, same basis lb. .1585- —
Sage, clary, bots lb.18.75 -19.00
Dalmatian, cns lb. 4.30 - —
Spanish, cns. lb 1 20 - 1.45
Sandalwood, cns. lb.14.00 - —
Sardine, crude, tanks, Pac. coast. lb. .08½- .08¾
Sassafras, artif., dms. lb. .48 - .60
nat., dom., dms. lb. 1.45 - 2.10
imp., Brazilian (see Oil ocotea cymbarum).
Savin, cns lb. 2.75 - —
Savory, cns. lb. 4.25 - —
Sesame, USP, dms lb. .38 - .39
Shingle stain, tar distillate, dms., c.l., works gal. .35 - —
t.c.l., works gal. .44 - —
tanks, works gal. .23 - —
Snakeroot, Canada, cns. lb. No stocks.
Soybean, crude, tanks, Decatur. lb. .14 - —
foots soapstock, acid, 95% tanks, N. Y. lb. .06¾- —
refd., alkali, dms. lb. .1858- .1873
tanks lb. .1645- —
clarified, dms. lb. .1808- .1823
tanks lb. .1595- —
salad, dms lb. .18¾- .19
Spearmint, dms. lb. .16¾- —
Spearmint, dms. lb. 4.40 - —
Sperm, bleached winter, 45° dms. lb. .1675- .1725
tanks lb. .1500- —
nat., winter, 45°, dms. lb. .1575- .1623
tanks lb. .1400- —

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Sunkist Growers PRODUCTS DEPARTMENT • ONTARIO, CALIFORNIA

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UNGERER & COMPANY, INC. 161 Avenue of the Americas New York 13, N.Y.

Inquiries from countries other than the U.S. and Canada should be directed to the Products Dept., Sunkist Growers.

Oil, spruce, cns., dms..... lb. 2.10 - 2.75
Sweet birch USP Northern, cns. lb. 4.25 - 9.50
Southern, cns ..... lb. 2.30 - 2.75
Tall, crude, dms., c.l., works.. lb. .03¾- .04¼
tanks, works ..... lb. .02½- —
dist., dms., c.l., works..... lb. .07½- —
l.c.l., works ..... lb. .07¾- —
tanks, works ..... lb. .06 - .06¼
refd., dms., c.l., works..... lb. .06½- .06¾
lb. .06½- .06¾
l.c.l., works ..... lb. .06¾- .07¾
tanks, works ..... lb. .05¼- .05¾
Tallow, acidless, dms., c.l..... lb. .13½- —
l.c.l. ..... lb. .14¼- .16
Tangerine, Floridian, dms ..... lb. 2.00 - 8.80
Tansy, dms ..... lb. 7.50 - 8.40
Tar acid (see T's).
Pine, coml., dms., c.l., works lb. .0561- —
l.c.l., works ..... lb. .0634- —
whse ..... lb. .0745- —
tanks works ..... lb. .046 - —
rectified, NF, dms., incl., l.c.l., works, South gal 1.05 - —
ex whse, N. Y. C gal. 1.15 - —
refd., dms., incl., l.c.l., works. gal. .92 - —
ex-whse, N.Y.C. ..... gal. 1.02 - —
Theobroma (see Cocoa butter)
Thyme, NF, red., cns., dms.... lb. 1.45 - 1.75
white, cns. ..... lb. 1.70 - 2.00
tech white cns ..... lb. 40 - 1.85
Tung, dms., c.l., N. Y..... lb. .25 - —
l.c.l., same basis ..... lb. .25½- .26
tanks, N. Y ..... lb. .23½- —
domestic mills ..... lb. .23¼- —
Turkey red (see Oil, castor, sulfonated).
Turpentine, NF cns. dms. lb .28 - .45
Veviter, Bourbon, cns ..... lb. 11.75 - 11.90
Haitian, cns. ..... lb. 9.25 - 10.00
Java cns ..... lb. 18.50 - 20.00
Wheat, germ, 5-gal. dms .... gal. 11.20 - —
White mineral, tech., 50-65 vis., non-ret dms c.l., t.o.b. N. Y gal. .55 - —
65-75 vis. non-ret. dms. c.l., same basis gal. .56 - —
t.c.l., same basis gal. .61 - —
80-90 vis., non-ret. dms., c.l., same basis gal. .57 - —
t.c.l., same basis gal. .62 - —
135-138 vis., non-ret. dms., c.l., same basis gal. .63 - —
t.c.l., same basis gal. .68 - —
145-155 vis. non-ret dms., c.l., same basis gal. .69½- —
t.c.l., same basis gal. .74½- —
USP, 180-190 vis., non-ret. dms., c.l., same basis gal. .71 - —
t.c.l., same basis gal. .76 - —
200-210 vis., non-ret dms., c.l., same basis gal. .75 - —
t.c.l., same basis gal. .79 - —
345-355 vis. non-ret. dms., c.l., same basis gal. .78½- —
t.c.l., same basis gal. .84½- —
Wintergreen, USP, nat., Northern, cns. lb. 6.35 - 10.30
Southern cns lb 3.20 - 19.50
syn. (see Methyl salicylate)
Wood (see Oil, tung).
Wormseed (see Oil, Chenopodium NF).
Wormwood, cns ..... lb 5.50 - 6.85
Ylang-ylang, Bourbon, bots..... lb. 14.00 - 16.00
extra bots ..... lb 28.00 - 40.00
Madagascar bots ..... lb No stocks
Oleostearine, dms..... lb. .14 - .15
Opium, USP, cns ..... oz. 19.20 - 19.45
gran., USP, cns ..... oz. 21.65 - 21.90
powd. USP cns ..... oz 21.65 - 21.90
Orange cadmium-selenide lithopone, light shade, bbls., frt. alld E. of Rockies lb. 1.80 - —
deep shade, bbls lb. 2.00 - —
Cadmium-mercury lithopone, deep shade, bbls lb. 1.78 - —
Chrome, CP, bbls., dlvd. N. of Tennessee and N.C., E. of Miss. R., include Davenport, Tenn., and E. of Minneapolis, Rock Island, St. Louis, St. Paul lb. .33½- .35

Chrome orange prices are ½c. higher, dlvd. Ala., Fla., Ga., La. (Shreveport); 1½c. Miss., N. C., S. C., Tenn., Dallas and Ft. Worth, Tex., El Paso, Tex.; 2c. Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph; 1.6c. higher dlvd. Pac. Coast for Denver, Pueblo, Salt Lake City, Wichita prices are equalized with Chicago.

Dinitroaniline toner CP ..... lb. 1.45 - —
Mineral, American, bbls., l.c.l., works lb. .2203- —
Molybdated, bbls. ..... lb. .46 - .46½
o-Nitroaniline toner kegs. ..... lb. 1.15 - —
Orange peel, bitter, Haitian, bls lb. .14 - .16
sweet, bls ..... lb. .16 - .18
Orris root, Florentine, bls..... lb. .55 - —
powd., bbls., bxs..... lb. .68 - —
Verona, bls. ..... lb. .33 - .40
powd., bbls., bxs..... lb. .45 - —
Orthoaminobiphenyl (see o-Aminobiphenyl)
Orthoanisidin (see o-Anisidine)
Orthochloroanilin (see o-Chloroaniline).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde)
Orthochloroparanitroanilin (see 2-Chloro-4-nitroaniline)
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol).
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroanilin (see o-Nitroaniline).
Orthonitrochlorobenzene (see o-Nitrochlorobenzene)
Orthonitrobiphenyl (see o-Nitrobiphenyl).
Orthonitroparachlorophenol (see 2-Nitro-4-chlorophenol)
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidin (see o-Phenetidine)
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary-amylphenol (see o-tert-Amylphenol).
Orthotolidin (see o-Tolidine base).
Orthotoluidin (see o-Toluidine).
Osage orange, cryst. No. 1, bbls. l.c.l. lb. .40 - —
extract, liq., No. 1, bbls., l.c.l., lb. .19 - —
Ouabain, USP, bots ..... gram. 3.00 - 4.00
Oxyquinolin sulfate, cns. 100-lb. tots, works lb. 4.75 - 5.00
smaller lots, works ..... lb. 4.92 - 5.17

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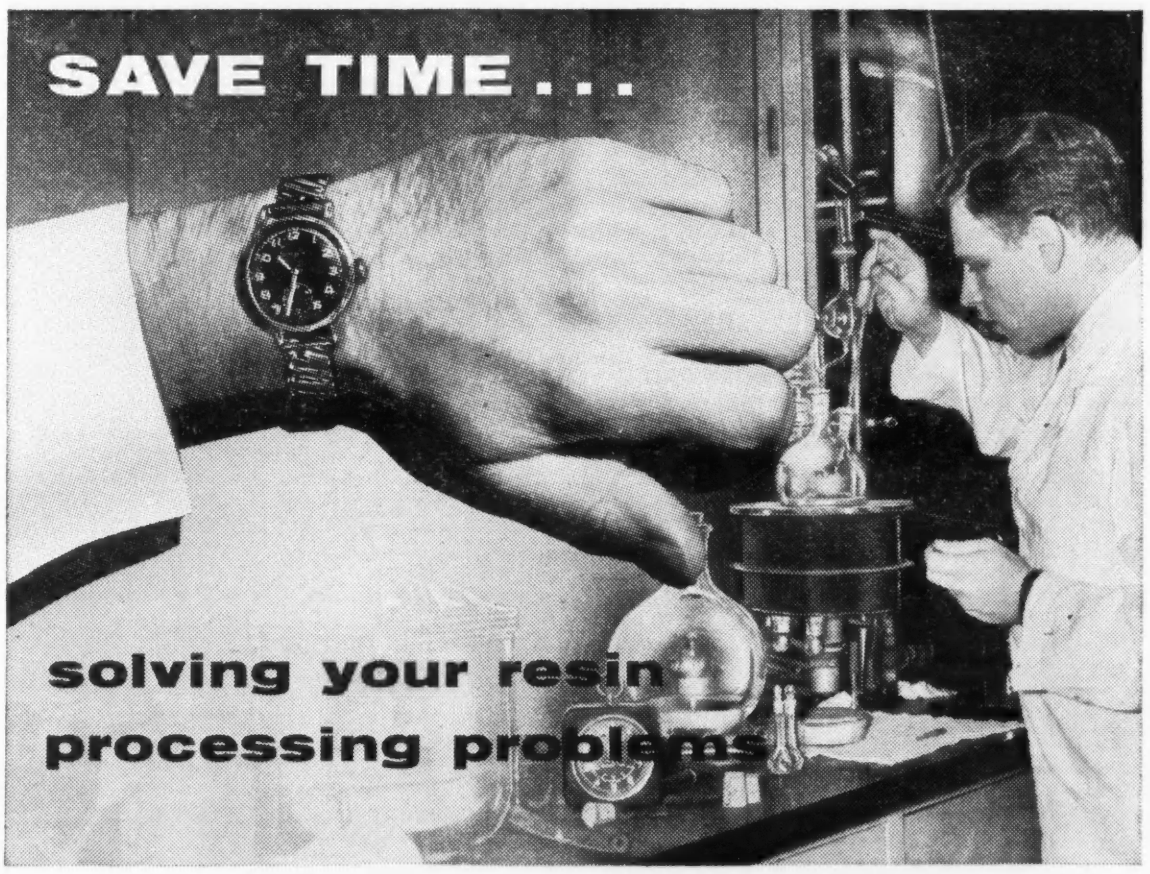
Papain, USP, African, bots..... lb. 3.50 - 4.00
Ceylon ..... lb. 3.00 - 3.50
Papaverine, nat. or syn. hydrochloride, USP, cns., 25-oz. to 100-oz. lots oz. 5.00 - —
smaller lots ..... oz. 5.05 - 5.20
Sulfate cns. ..... oz. 7.10 - 7.35
Paprika, Roumanian, bgs..... lb. .26 - —
Spanish, bgs ..... lb. .60 - —
Yugoslavian, bgs..... lb. .35 - —
Para-aminophenol (see p-Aminophenol)
Para-anisidin (see p-Anisidine)
Parachloro-ortnonitroanilin (see 4-Chloro-2 nitroaniline).
Parachloranilin (see p-Chloraniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Parachlorophenol (see p-Chlorophenol).
Paracresol (see p-Cresol).

Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).
Paraffin, crude, scale, white, 123°-127°F, ASTM, tanks, refy. lb. .0710- —
fully refd., 122°-124°F, ASTM, tanks, refy lb. .0815- —
125°-127°F, ASTM, tanks, refy lb. .0813- —
130°-132°F, ASTM, tanks, refy lb. .0813- —
132°-134°F, ASTM, tanks, refy lb. .0815- —
135°-137°F, ASTM, tanks, refy. lb. .0815- —

AMP temperatures are an arbitrary 3°F higher than ASTM.

Paraformaldehyde, 91%, flake, bgs., c.l., frt. alld lb. .11¼- —
l.c.l., frt. alld ..... lb. .13¼- .14¼
powd., bgs., c.l., frt. alld lb. .16 - —
l.c.l., frt. alld ..... lb. .17½- —
USP, X, fib. dms., c.l. ..... lb. .183 - —
1,000-lb lots ..... lb. .193 - —
smaller lots ..... lb. .208 - —
Paraldehyde, tecn., 98%, 55-gal. dms., c.l., works lb. .14 - —
l.c.l., works lb. .15 - —
tanks, works lb. .11½- —
Paranitroanilin (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene)
Paranitrotoluene (see p-Nitrotoluene).
Paranitrophenol (see p-Nitrophenol).
Paraphenetidin (see p-Phenetidine).
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol (see p-Phenylphenol).
Para-tertiary-amylphenol (see p-tert-Amylphenol)
Para-tertiary butylphenol (see p-tert-Butylphenol)
Parathion, spray powder, 15%, dealers, bgs., dms., frt. alld lb. .50 - .53
tech., dms., c.l., t.l., works lb 1.3395- —
l.c.l., works ..... lb. 1.51 - —
Paratoluenesulphonamide (see p-Toluenesulfonamide).
Paris green, dealer, dms., c.l., frt. alld lb. .44 - .47
l.c.l., same basis ..... lb. .43 - .48
Passion flower herb, bls. ..... lb. .25 - —
Peanut meal, 45%, old process, bgs., mills ton. 55.00 Nom.
Pectin, citrus, NF, powd., bbls lb. 2.05 - 2.06
tech., powd., bbls. ..... lb. 1.25 - —
imported, Danish, ex whse ... lb. 1.28 - —
Penicillin, crystalline, potassium, bulk 1,000,000 units. .0525- .0550
Procaine, bulk..... 1,000,000 units. .0525- .0550
Sodium, bulk..... 1,000,000 units. .0625- .0650
Pentachlorophenol, dms., c.l., t.l., works, frt. equald lb. .22 - —
l.c.l., same basis ..... lb. .23½- .30
Pentaerythritol, tech., bgs., c.l., works lb. .32 - —
l.c.l., works ..... lb. .33 - —
Di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).
Pentane, indust., tanks., Tex. refy. gal. .13 - —
Pepper, black, Malabar, spot bgs. lb. .28½- —
red, Gondar, spot, bgs. ..... lb. No prices.
Japanese, hontaka bgs ..... lb. .34 - —
birdseyes, bgs., new crop lb. No prices.
Mombasa, bgs., shipt ..... lb. .56 - .57
Nigerian, bgs ..... lb. .42 - —
Turkish, bgs. ..... lb. .28 - —
white, bgs ..... lb. .35 - .36
Peppermint leaves, USP, dom., bls., dms lb 70 - 73
imp., bls ..... lb. .85 - —
Perchloroethylene, dms., c.l., or truckloads, dlvd lb. .13 - —
l.c.l., dlvd. ..... lb. .14½- —
tanktruck, 1,000 gal., min. dlvd lb. .12 - —
tanks dlvd. ..... lb. .11½- —
Peru balsam, dms ..... lb 1.35 - —
Petrolatum, extra amber, dms., c.l., refy lb. .06½- —
l.c.l., dlvd ..... lb. .08¼- —
tanks, refy. ..... lb. .04¼- —
cream, dms., c.l., refy ..... lb. .07½- —
l.c.l., dlvd. ..... lb. .09¾- —
tanks, refy. ..... lb. .05¼- —
USP, white, lily, dms., c.l., refy. lb. .07¾- —
l.c.l., dlvd ..... lb. .10⅛- —
tanks, refy ..... lb. .05⅝- —
snow, dms., c.l., refy ..... lb. .08¾- —
l.c.l., dlvd ..... lb. .10⅝- —
tanks, refy ..... lb. .06⅛- —
yellow, soft, dms., c.l., refy lb. .06½- —
l.c.l., dlvd ..... lb. .08¼- —
tanks, refy ..... lb. .04¼- —
Petroleum, lacquer diluent, 150°-240°F, b.r., tanks, West Coast, ex tax, Los Angeles. gal. .169 - .204
East coast N. J., N. Y. gal. .19 - —
Group 3, benzol-type gal. .14125- .14625
toluol-type gal. .13125- .13375
Mineral spirits, reg. tanks, Calif., ex tax San Francisco gal. .164 - —
East coast, N.J., N.Y gal. .17 - —
Group 3 ..... gal. .11875- —



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Petroleum, mineral spirits, reg., tankwagon, Boston	gal.	.19	—
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Borger, Tex.	gal.	.24	—
Houston, Tex.	gal.	.24	—
Wood River, Ill.	gal.	.2625	—
N. J., dlvd	gal.	.32	—
N. Y., dlvd	gal.	.33½	—
tankwagon, N. J., dlvd	gal.	.36	—
N. Y., dlvd.	gal.	.37	—
Naphtha, cleaners, tanks, East Coast, N. J., and N. Y.	gal.	.17	—
Group 3	gal.	.12875	—
tankwagon, Newark	gal.	.18	—
New York	gal.	.18	—
Philadelphia	gal.	.185	—
High solvency (see Petroleum solvent, partial aromatic).			
VM&P, 225°-300°F., b.r., tanks, West Coast, Los Angeles	gal.	.169	—
Portland, Ore	gal.	.175	—
San Francisco	gal.	.174	—
Seattle, Wash	gal.	.175	—
East Coast, N. J. and N. Y.	gal.	.18	—
Group 3	gal.	.12875	—
tankwagon, Boston	gal.	.205	—
Chicago	gal.	.239	—
Cleveland	gal.	.23	—
Newark	gal.	.195	—
New York	gal.	.193	—
Philadelphia	gal.	.20	—
Pittsburgh	gal.	.19	—
Solvent, partial aromatic, tanks, 205°-282°F., b.r., 41°C. m.a.p., N. Y., N. J	gal.	.245	—
212°-278°F b.r. 43°C. m.a.p., N. J	gal.	.26	—
212°-284°F. b.r., 19°C. m.a.p., N. J	gal.	.29	—
224°-280°F., b.r., 48°C, m.p.a., Houston	gal.	.215	—
273°-361°F., b.r., 29°C., m.a.p., N. J	gal.	.29	—
282°-325°F b.r., 41.5°C. m.a.p. Houston	gal.	.25	—
287°-386°F., b.r. 31°C. m.a.p., N. J.	gal.	.29	—
310°-314°F., b.r., 13.5°C., m.a.p., Texas City	gal.	.33	—
310°-348° b.r., 17°C., m.a.p., N. Y., N. J	gal.	.35	—
320°-360°F., b.r., 16°C., m.a.p., N. Y., N. J	gal.	.33	—
324°-349°F., 37°C., m.a.p., Houston	gal.	.33	—
341°-390°F., b.r., 35°C., m.a.p., N. J	gal.	.27	—
352°-413°F., b.r., 30°C., m.a.p. Houston	gal.	.33	—
358°-401°F., b.r., 25°C., m.a.p., N. Y., N. J	gal.	.39	—
364°-404°F b.r., 19°C. m.a.p., N. Y., N. J	gal.	.425	—
367°-418°F b.r., 19.6°C. m.a.p., N. Y., N. J	gal.	.33	—
Rubber, tanks, Cal., ex tax, San Francisco	gal.	.173	—
East Coast, N. J., N. Y.,	gal.	.18	—
Group 3	gal.	.12875	—
Stoddard, tanks, East Coast, N. J., N. Y.	gal.	.17	—
Group 3	gal.	.12375	—
Pennsylvania, western	gal.	.15	—
tankwagon, Boston	gal.	.19	—
Chicago	gal.	.289	—
Cleveland	gal.	.22	—
Los Angeles, ex tax	gal.	.194	—
Newark	gal.	.18	—
New York	gal.	.18	—
Philadelphia	gal.	.185	—
Pittsburgh	gal.	.18	—
Sulfonate, oil soluble, 60-62% sulfonic content, non-ret. dms., c.l., works	lb.	.16½-	.18¾
t.c.l. works	lb.	.17½-	.19
tanks, works	lb.	.14½-	.17
50-55% sulfonic content, non-ret. dms., c.l., works	lb.	.16	—
t.c.l. works	lb.	.17	—
tanks, works	lb.	.13	—
o-Phenetidine, dms., t.l., frt. alld. E	lb.	.91	—
t.c.l., same basis	lb.	.93	—
p-Phenetidine, dms., c.l., frt. alld.	lb.	1.00	—
t.c.l., same basis	lb.	1.03	—
Phenobarbitol, USP, dms., 100-lb. lots	lb.	3.25	—
Phenobarbital-sodium, USP, dms., 100-lb. lots	lb.	3.25	—
Phenol, 90-92% (cresol 8-10%), non-ret. dms. c.l. frt alld E. of Rockies	lb.	.17¾-	.18
t.c.l., same basis	lb.	.18¼-	.19
tanks, same basis	lb.	.16	—
82-84% (cresol 16-18%), non-ret. dms., c.l., same basis	lb.	.17½-	—
t.c.l. same basis	lb.	.18½-	—
tanks, same basis	lb.	.15½-	—
39°C or above, tar distilled, non-ret. dms. c.l. same basis.	lb.	.19¼-	.19½
t.c.l. same basis	lb.	.19¾-	.20½
tanks, same basis	lb.	.17½-	—
USP, syn., dms. c.l., t.l., frt. alld	lb.	.20	—
t.c.l., same basis	lb.	.22	—
tanks, same basis	lb.	.18	—
Phenolphthalein, USP or yellow, bbls. dms. 2,000-lb lots.	lb.	1.15	—
smaller lots	lb.	1.17	1.22
Phenothiazine, NF, fib. dms., c.l., frt. adjusted	lb.	.39	—
over 2,100 lbs., same basis	lb.	.41	—
less than 2,100 lbs., same basis.	lb.	.43	—
Phenyl acetate, dms., 100-lb. tots, works	lb.	.50	—
Salicylate (see Salol.)			
Phenylacetaldehyde, soln., 50%, bots	lb.	2.40	2.70
100%, bots	lb.	4.00	4.65
1-Phenyl-3-carbethoxy pyrazolone-5, 250-lb. fib. dms., dlvd. E	lb.	3.60	—
smaller dms., dlvd. E	lb.	4.00	—
N-Phenyldiethanolamine, dms., c.l., dlvd. E	lb.	.40½-	—
t.c.l. dlvd. E	lb.	.41½-	—
tanks, dlvd. E	lb.	.38½-	—
m-Phenylenediamine, dms. frt. alld.	lb.	.95	—
o-Phenylenediamine, comi., 100 to 1,000 lbs., fib. dms., works	lb.	1.70	1.80
p-Phenylenediamine, refd., tech., dms., works	lb.	1.42	—
Phenylethanolamine dms., c.l., works	lb.	73½-	—
t.c.l. same basis	lb.	76	—
dl-Phenylalanine, dms., works	lb.	27.00	-37.50
Phenylethyl acetate, bots	lb.	1.25	1.60
Phenylhydrazine base, CP, bots	lb.	3.00	3.07
Hydrochloride, comi., kgs., works.	lb.	1.75	—
purif., bots., works	lb.	5.17	—
1-Phenyl-3-methyl pyrazolone-5, 250-lb. lots, dlvd. E	lb.	1.80	—
smaller lots, dlivd. E	lb.	2.10	—
Phenylethylphenyl acetate, bots	lb.	4.15	4.35
o-Phenylphenol, dms., t.c.l., works.	lb.	.42	.44
p-Phenylphenol, bgs., c.l., works	lb.	.37	—
t.c.l., works	lb.	.41½-	—
Phloroglucinol, comi., fib. dms., works	lb.	6.40	—
C.P., bots., works	lb.	17.75	—
tech., fib. drums., works	lb.	10.45	—
Phosphate, defluorinated (see under D).			
Rock, Curacao, Atlantic ports, New Orleans	ton.	48.00	—
Florida, land pebble, run-of-mine, washed, dried unground, bulk, c.l., mines, 68-66%, b.p.l., bulk, c.l., mines	long-ton.	4.94	4.99
70-68%, b.p.l., c.l., same basis	long-ton.	5.34	5.39
72-70%, b.p.l., c.l., same basis	long-ton.	5.99	—
75-74%, b.p.l., c.l., same basis	long-ton.	6.99	—
78-76%, b.p.l., c.l., same basis	long-ton.	7.99	—
The Florida prices (above) are based on fuel oil at $2.47 per bbl. and labor at $1.43. Recent oil advance currently absorbed.			
Phosphorus, amorph, red dms., t.l., works	lb.	.48	—
smaller lots, works	lb.	.49	.50
white (yellow), solid, dms., c.l., works,, frt. equald	lb.	.20	.20½
t.c.l., works, frt equald.	lb.	.21½-	—
tanks, works, frt equald.	lb.	.19	—
Oxychloride, dms., c.l., works	lb.	.14	—
t.c.l., works	lb.	.15	—
tanks, works	lb.	.12½-	—
Pentasulfide, solid, dms., c.l., works	lb.	.11½-	—
t.c.l., works	lb.	.12½-	—
Pentoxide, dms., c.l., works	lb.	.13½-	—
t.c.l., works	lb.	.16½-	—
Sesquisulfide, tins, cs., c.l., works.	lb.	.38	—
t.c.l., works	lb.	.39	.40
Trichloride, dms., c.l., works	lb.	.14	—
t.c.l. works	lb.	.15	—
tankcars, works	lb.	.12½-	—
Phthalic anhydride, bgs., c.l., works, frt. equald	lb.	.21	—
t.c.l., same basis	lb.	.22	—
tanks, same basis	lb.	.20½-	—
Phthalimide, 97%-98%, dms., frt. equald	lb.	.65	—
Phthalylsulfacetamide, 1,000-lb lots or more	lb	5.00	—
NF	lb.	5.20	—
a-Picoline, ret. dms., c.l., works, frt. equald	lb	.43	.43½
t.c.l., works, frt. equald	lb.	.44	—
tanks, same basis	lb.	.415	.422
b,g-Picoline, 5°C. dms. c.l., works.	lb.	.32½-	—
t.c.l. works	lb	33	—
g-Picoline, 96% dms., works	lb.	2.00	—
Pilocarpine hydrochloride, USP, bots	oz	4.75	5.25
Nitrate, USP, bots., vials	oz	4.65	4.75
Pimento, Jamaican, bgs	lb.	.72	—
Mexican, bgs	lb.	.36	—
Pink root, bls	lb	2.50	—
Piperazine, crude, dms., c.l., works.	lb.	3.13	—
t.c.l., works	lb.	3.30	—
Hexahydrate, French Codex, bots.	kilo.	8.00	8.50
Piperidine, dist., dms. frt. equald	lb	2.60	2.70
Piperonyl butoxide, dms. dlvd E	lb	4.50	5.05
Pitch, coaltar, bulk, aluminum, works	ton.	40.00	-42.00
carbon and industrial, works.	ton.	40.00	—
core, works	ton.	36.50	—
fiber, works	ton.	44.00	—
roofing, 140-155°F., Fed. Spec. RP-381, Type I, tanks, works	ton.	39.00	—
Cottonseed, raw, dms., works	lb.	.03	.03¼
tanks, same basis	lb.	.02¾-	—
Linseed, dms	lb.	.06	.06¾
Marine, dms	lb.	.04½-	.05
Petroleum (see Asphalt, petroleum).			
Soybean, dms., works	lb.	.05	.05½
Tall, dms., c.l., works	ton.	50.00	-70.00
tanks, works	ton.	30.00	-40.00
Plaster of Paris (see Gypsum).			
Platinum metal, works	oz.	105.00	-107.00
Pleurisy root, bls	lb.	.45	.50
Podophyllum resin, NF, dms.	lb.	13.60	-16.10
Poke root, bls	lb.	.19	.22
Polymyxin, bulk, bots., dms., 50 billion units or more.	1,000,000 units.	.52	—
25-50 billion units	1,000,000 units.	.54	—
1-25 billion units	1,000,000 units.	.56	—
Polyoxyethylene sorbitan monostearate, dms. 20,000-lb. lots, works	lb.	.41	—
10,000-20,000-lb lots, works.	lb.	.43	—
smaller lots, works	lb.	.46	.49
Tristearate, dms., 20,000-lb. lots, works	lb.	.41	—
10,000-20,000 lb. lots, works.	lb.	.43	—
smaller lots, works	lb.	.46	.48
Poppy seed, Argentine, bgs	lb.	.24	—
Dutch, bgs	lb.	.28	—
Iranian, bgs	lb.	.14½-	.15
Polish, bgs	lb.	.27½-	—
Turkish, bgs	lb.	.24	—
Potash, caustic reg., flake, 88-92% dms., c.l., works	100 lbs.	9.15	—
t.c.l., works	100 lbs.	10.20	—
liq., 45% basis, dms., c.l., works	100 lbs.	4.25	—
t.c.l., same basis	100 lbs.	5.05	—
tanks, same basis	100 lbs.	3.70	—
solid, 88-92%, dms., c.l., works.	100 lbs.	8.70	—
t.c.l., works	100 lbs.	9.75	—
Potassium acetate, NF, dms	lb.	.31	.36
Bicarbonate, USP, gran., dms	lb.	.22	—
powd., dms	lb.	.24	—
Bichromate, gran., bgs., c.l., t.l., works	lb.	.18	—
t.c.l., works	lb.	.18½-	.19¾
Potassium bichromate in dms. ¾c. higher.			
Bitartrate, NF, dom., gran. or powd., bbls., 5,000 lbs., 1 ship't	lb.	.40½-	—
dms., c.l.	lb.	.40	—
smaller lots	lb.	.41	.43
imp., kgs	lb.	.32	.35
Bromate, dms., 1,000 lbs. or more.	lb.	.50	—
25-200-lb. lots	lb.	.52	.62
Bromide, USP, gran., bbls., kgs.	lb.	.37	.38
Carbonate, NF, gram., bbls., dms.	lb.	.20	—
powd., bbls., dms	lb.	.21	.22
Potassium carbonate, tech., calcined, bbls., c.l., works	100 lbs.	9.00	—
t.c.l., same basis	100 lbs.	10.05	—
hydrated, 83-85%, bbls., c.l., works	100 lbs.	7.60	—
t.c.l., works	100 lbs.	8.65	—
Chlorate, cryst., dms., c.l., works.	lb.	.11¼-	—
t.c.l., works	lb.	.11½-	.12½
powd., dms., c.l., works	lb.	.12¾-	—
t.c.l., works	lb.	.12	.13
NF, gran., 25-lb. metal dms	lb.	.36	—
Chloride, agricultural (see Potassium muriate),			
indust. 99.9% KCl, bulk, c.l., works	ton.	29.00	—
bgs., c.l., works	ton.	33.50	—
99.3% KCl, bulk, c.l., works.	ton.	27.00	—
bgs., c.l., works	ton.	31.50	—
USP, cryst., dms	lb.	.21	.23
gran., dms	lb.	.15	.17
powd., dms	lb.	.24	.26
Chromate, tech., bgs.	lb.	.50	.50½
Citrate, USP, gran., dms	lb.	.43	—
powd., dms	lb.	.40½-	.41½
Cyanide dms., 20,000-lb. lots or more, works	lb.	.45	—
2,000-19,999-lb. lots, works	lb.	.455	—
smaller lots, works	lb.	.465	—
Dichromate (see Potassium bichromate)			
Ferricyanide, dms., ton lots, works.	lb.	.50	—
smaller lots, works	lb.	.65	—
Ferrocyanide, bgs., ton lots	lb.	.23	—
smaller lots	lb.	.23½-	—
Fluoborate, fib dms., c.l., works	lb.	.30	—
t.c.l., works	lb.	.31	—
Fluoride, dms., works	lb.	.37	.38
Gluconate, dms.	lb.	1.60	—
Guaiacolsulfonate, NF, dms	lb.	2.10	2.30
Hydroxide, tecn. (see Potash caustic)			
USP, pellets 100-lb. dms. 1 to 100-dm. lots	lb.	.28½-	.33
Hypophosphite, NF, fib. dms., ton lots or less	lb.	1.00	1.03
Iodide, dms	lb.	1.90	1.95
Metabisulfite, gran., dms.	lb.	.20	.21
powd., dms	lb.	.25	—
Muriate, standard and granular, 59-63% K_2O, bulk, c.l., works, base price, unit-ton.		.36	—
July forward unit-ton.		.38	—
granular, 60-63% K_2O, bgs., c.l., works, base price	ton.	26.25	—
July forward	ton.	27.45	—
Nitrate, NF, cryst., bbls., 20-ton lots	100 lbs.	16.50	—
smaller lots	100 lbs.	17.50	-18.00
gran., bgs., 20-ton lots	100 lbs.	9.25	—
smaller lots	100 lbs.	10.50	-11.00
powd., bgs., 20-ton lots	100 lbs.	10.25	—
smaller lots	100 lbs.	11.50	-12.00
Oxalate, neutral, tech., fine gran., bbls., dms	lb.	.30	.31
Pentaborate, gran, bgs., c.l., works.	ton.	191.50	—
dms., ton lots, ex whse	ton.	198.00	—
smaller lots, ex whse	ton.	302.50	—
Powdered potassium pentaborate $10.25 per ton higher			
Perchlorate, dms., c.l., works	lb.	.18½-	—
t.c.l., works	lb.	.19	.20
Permanganate, comi. kgs., works.	lb.	.26	.29
USP, dms., works	lb.	.29¼-	.31
Persulfate, bbls., c.l., works	lb.	.16½-	—
dms., 5-ton lots, works	lb.	.18	—
1-ton lots, works	lb.	.20	—
Pyrophosphate, tetrabasic, dms., works	lb.	.15½-	.18½
Prussiate, red (see Potassium Ferricyanide).			
yellow (see Potassium Ferrocyanide)			
Silicate, glass bgs., c.l., works.	100 lbs.	17.00	-17.30
t.c.l., works	100 lbs.	17.80	—
soln., clarif., 29° Be, 1:2.5, dms., c.l., works	100 lbs.	5.80	—
t.c.l., 5 dms. or more works	100-lbs.	6.55	6.95
tanks, works	100-lbs.	5.45	—
electrical grade, 29° Be, 1:2.0, dms., c.l., works	100 lbs.	6.50	—
t.c.l., 5 dms or more works	100 lbs.	7.25	7.65
tanks, works	100 lbs.	6.15	—
40.5° Be, 1:2.1, dms., c.l., works	100 lbs.	6.45	—
t.c.l., 5 dms. or more works	100 lbs.	7.20	7.60
tanks, works	100 lbs.	6.10	—
Silicofluoride, bgs., works	lb.	.09½-	.10
tanks, works	100 lbs.	6.10	—
Potassium silicofluoride in drums, 0.4c. per lb higher			
Stannate, dms., frt. alld. E	lb.	.713	.779
Sulfate agricultural, 50% K_2O, bulk, works, base price, unit-ton.		.64	—
July forward unit-ton.		.67	—
NF VII, cryst., dms	lb.	.31	.33
gran., dms.	lb.	.18½-	—
powder, dms	lb.	.16	.17
Sulfocyanate, NF, cryst., (see Potassium thiocyanate).			
Thiocyanate, NF, cryst., dms	lb.	.84	.94
tech., works	lb.	.77	.79
Titanate, etns., c.l., works	lb.	.14	—
5-ton lots, works	lb.	.14½-	—
1-ton lot or less, works	lb.	.14¾-	—
Toluene sulfonate, dms., c.l., or t.l., works	lb.	.42	—
t.c.l., works	lb.	.46	—
Potassium-magnesium sulfate, bulk, works, basis 40% K_2SO_4, 18% MgO base price	ton.	13.45	—
July forward	ton.	14.00	—
Potassium-sodium tartrate, NF, gran. powd., dms., c.l.	lb.	.42½-	—
5,000-lb. lots	lb.	.43	—
smaller lots	lb.	.43½-	.49
Potassium-titanium fluoride, fib. dms, works	lb.	.39	.40
Potassium-zirconium fluoride, fib. dms, c.l., works	lb.	.50	—
t.c.l., works	lb.	.52½-	.55
Methyl ether dms., c.l., dlvd	lb.	.20	—
t.c.l., same basis	lb.	.21	—
tanks, same basis	lb.	.18½-	—
Pregnenolone, bots.	gram.	.45	—
Acetate, bots.	gram.	.40	—
Procaine hydrochloride, USP, dms., 1,000-lb. lots, frt. alld	lb.	2.83	—
100-500-lb. lots	lb.	2.95	3.15
Progesterone, USP, bots., 100 gram lots	gram	.50	—
Acetate, bots.	gram	.70	—
Propane, indust., tanks, group 3	gal.	.05	—
N. Y. Harbor	gal.	.093	—
n-Propyl acetate, dms., c.l., dlvd.	lb.	.14¼-	—
t.c.l., dlvd	lb.	.15¼-	—
tanks, dlvd	lb.	.11¾-	—
Gallate, dms., 100 to 2,000-lb. lots, works	lb.	3.90	4.40
p-Hydroxybenzoate, USP, dms	lb.	2.30	2.40
Propyl thiouracil, bots., 50-kilo lots or more	kilo.	55.00	—
smaller lots	kilo.	55.10	-55.30
Propylene dichloride, dms. c.l., dlvd. E	lb.	.09½-	—
t.c.l., same basis	lb.	.10¼-	—
tanks same basis	lb	07	—
Propylene dichloride prices in West 1c. higher dlvd. on same basis.			
Propylene glycol, indust., dms., c.l., dlvd. E.	lb.	.16	—
t.c.l., same basis	lb.	.17	—
tanks, same basis	lb.	.13½-	—
USP, dms., c.l., dlvd. E	lb.	.18	—
t.c.l., same basis	lb.	.19	—
tanks, same basis	lb.	.15½-	—
Oxide, dms., c.l., dlvd. E	lb.	.18	—
t.c.l., dlvd. E	lb.	.19	—
tanks, dlvd E	lb.	.16½-	—
Psyllium seed, black, bgs.	lb.	.28	.30
blonde, bgs.	lb.	.18	—
husks, bgs.	lb.	.40	—
Pumice, dom., grd., coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots	lb.	.03½-	.04¼
smaller lots	lb.	.03½-	.04½
imp., Italian, silk-screen, coarse, bgs., ton lots	lb.	.06½-	—
fine, bgs., ton lots	lb.	.04	—
sun dried, coarse, bgs.	ton.	58.00	—
Pumpkin seed, bgs	lb.	.25	.26
Pyrethrin, syn. (see Allethrin).			
Pyrethrum flowers, fine grd., 0.9% pyrethrins, bbls., works	lb.	.45	—
powd., 1.3% pyrethrins, obls., works	lb.	.65	—
liq. 20/1 basis (2 grams pyrethrins per 100cc odorless base), 100/1 basis (10 grams pyrethrins per 100cc odorless base) dms., works	gal.	41.75	-42.75
oleoresin, dewaxed, 20%, dms., works	lb.	10.00	—
purif., 20% dms. works	lb.	10.00	-10.10
Pyridine, denaturing, dms., c.l., works and frt. equald	gal.	2.77	—
t.c.l., same basis	gal.	2.80	—
refd., 2°, non-ret dms., t.c.l., same basis	lb.	.75	—
Pyridoxine hydrochloride, bots., 100-gram lots	gram.	.37½-	—
Pyrites, Canadian, works	long-ton.	3.00	5.00
Pyrocatechol (see Catechol)			
Pyrogallol, NF, 100 lb. dms	lb.	3.50	—
Pyroxylin scrap, ungrd., amber, dms., works	lb.	.20	—
black, dms., works	lb.	.12	—
mixed mottled dms., works	lb.	.13	—
snavings, amber, cs., works	lb.	No stocks.	
mixed colors, dms., works	lb.	.11	—
white, china, ivory, dms., works	lb.	.16	—
dense, opaque, dms. works.	lb.	.12	.15
translucent pastels, cs., works.	lb.	.14	—
colors, dms., works	lb.	.16	—
USP bots	lb	9.50	—

Q

Quassia chips	lb.	.17	—
Quebracho extract, clarif., grd., 70% tannin bgs. c.l.,	lb.	.16½-	.16¾
liq. 35% tannin bbls works,	lb.	.08¼-	.08½
solid, clarif., 64% tannin, bgs., c.l., ex-dock, duty extra	lb.	.12 23 64	
ord. 63% tannin, ogs., c.l., same basis	lb	11 21/32	—
Quercitron extract, cryst. No. 1, bbls. t.c.l.	lb.	.40	—
liq. No 1 bbls t.c.l	lb	19	—
Quicksilver (see Mercury metal)			
Quince seed, bgs	lb	2.00	Nom.
Quinidine sulfate USP cns., 100-oz. lots	oz.	.73	.73
Quinine, NF, cns., 100-oz. lots	oz.	.54	—
Bisulfate USP cns. 100-oz lots.	oz.	.37½-	—
Hydrochloride, cns., 100-oz. lots	oz.	.35	.47½
Sulfate, USP, cns., 100-oz lots	oz.	.29	.35
Quinoline dms. c.l. frt equald	lb.	.50¾-	—
t.c.l., same basis	lb.	.51¼-	—
tanks, same basis	lb.	.50	—

R

R salt, paste, dms., frt. alld. 100% basis	lb	.88	—
powd., frt alld. 100% basis	lb.	.98	—
Rauwolfia serpentina root, powd., bbls., dms	lb.	1.75	—
Red, BON acid maroons, pure, bbls.,	lb.	1.75	—
resinated, bbls	lb	1.50	—
arylid, deep shades, bbls	lb	3.60	—
light shades, bbls	lb	2.75	—
maroon, bbls	lb	3.60	5.90
Cadmium, CP, dark shade, bbls., frt. alld. E. of Rockies	lb.	4.30	—
light shade, bbls. same basis.	lb.	4.00	—
medium shade, bbls., same basis	lb.	4.25	—
medium light shade, bbls., same basis	lb.	4.05	—
orange shade, bbls., same basis	lb.	3.95	—
orange red bbls. same basis.	lb	1.81	—
Selenide lithopone, maroon shade, bbls., same basis.	lb.	3.77	—
dark, bbls., same basis.	lb.	3.90	—
red shade, dark, bbls., same basis	lb.	3.44	—
light, bbls., same basis.	lb	2.24	2.32
medium, bbls., same basis.	lb.	2.99	—
medium light, bbls., same basis	lb.	2.49	—
Mercury lithopone, dark shade, bbls., same basis	lb.	2.40	—
light shade, bbls., same basis.	lb.	1.93	—
medium shade, bbls., same basis	lb.	2.25	—
medium light shade, bbls., same basis	lb.	2.10	—
Carmine No. 40 (see Carmine).			
Dyes (see Dyes, coaltar)			
Eosin toner, bbls., works	lb.	1.65	—
Indian, dom., pure, bgs., Bethlehem, Easton & St. Louis,	lb.	.12¾-	—
Iron oxide, nat., 75-85% ferric oxide, bgs. t.c.l.: Bethlehem Pa., Copley, O., Easton, Pa., bgs. c.l. works	lb.	.0675	—
Lake C toner, alizarine, bbls., works	lb	1.13	—
Lithol toner bbls., works	lb.	.85	—
rubine toner pure bbls works.	lb	1.50	—
resinated, bbls., works	lb	1.40	—
Virginia type bbls., works	lb	1.40	—
Maroon toner, MNPT, kgs., c.l., works	lb	3.60	—
10,000-lb lots, works	lb	4.22	—
smaller lots, works	lb	4.24	—
Mercury oxide, tech. c.l., works.	lb.	5.77	—
Metallic, bbls., c.l., works	lb.	.02½-	—
t.c.l. works	lb	.02¾-	—
Naphthol, ITR, bbls., works	lb.	5.25	—
Oxide (see Red iron oxide)			
Persian Gulf bgs., c.l., works.	lb.	.07¾-	—
t.c.l. works	lb	.08	—
Para toner, bbls	lb	1.10	—
chlorinated, kgs	lb	1.10	1.15
Phloxin toner (see Red eosin toner)			
Rhodamine, molybdated, PMA, kegs	lb	5.35	5.60
tungstated, PTMA, works, kegs	lb	6.40	—

Red, Spanish oxide, bbls., c.l., ex-dock .lb. .05¾- —
l.c.l., ex dock lb. .06 —
ex whse., New York lb .06½- —
Toluidine toner, deep shades, kgs., works lb. 1.62 - 1.65
light shades, kgs. works lb 1.62 1.65
Turkey, bbls., works lb. .62 - —
Tuscan, bbls., frt. equald lb. .26 .32
Venetian, jobbing, bgs., works lb. .0475- —
lb. .0473- —
20%, bgs., works lb. .0525- —
25%, bgs., works lb. .0573- —
30%, bgs., works lb .06 - —
35%, bgs., works lb .0625- —
40%, bgs., works lb .0673- —
Watchung-type bbls m 1.95 —
Red KB base (see 4-Chloro-2-aminotoluene).
Red, precipitate (see Mercuric oxide, red)
Red saunders, NF powd. opt. lb .35 .40
Reserpine, cryst., bots. gram. 3.00 - —
Resorcinol, tech. grade, dms., c.l., works, frt equald lb 77½- —
l.c.l. same basis lb 78½- —
USP, dms., works lb 2.75 —
powd., dms., works lb 2.95 —
Monoacetate NF dms lb 3.00 3.25
Rhatany root bgs lb .15 .16
Rhodinol, 5-lb cans lb. 32.00 -36.00
Rhubarb root, India, whole, bgs. lb. .30 - —
powd., bbls lb .38 - —
Riboflavin, USP, bots. dlvd kilo. 65.00 - —
readily soluble, bots. dlvd kilo. 130.00 - —
5'-phosphate-sodium, bots., 100-kilo lots or more kilo 125.00 - —
Rochelle salt (see Potassium-sodium tartrate).
Roofing pitch (see Pitch, coal, roofing)
Rosin gum and wood (see Naval Stores in Protective Coatings market)
Rotenone, fib, dms., works, unit-lb. .12 - —
resin, 25-45% fib dms works, unit-lb. .12 - —
Rottenstone, bgs., ton lots, ex-whse lb. .03¾- —
ton lots, same basis lb. .04¼- —
Rutin, NF, fib, dms., 10 kilo lots. kilo. 17.00 - —
5 kilo lots kilo. 17.50 - —
1 kilo kilo. 18.50 - —
Ryania, 100% powd. bgs., c.l., works lb. .22 - —
l.c.l. same basis lb .24 - —

S

Sabadilla seed, powd., bbls lb. .49 - .49½
activated, ground with lime, bbls. lb. .30 - .32
Saccharin USP cryst., soluble, dms., 1000-lb lots lb. 1.60 - —
smaller lots lb. 1.70 - 1.80
powd., soluble, insoluble, dms., 1,000-lb. lots lb. 1.65 - —
smaller lots lb 1.75 - 1.95
Calcium, fib dms 1,000-lb. lots, works lb 2.50 - —
Saffron, Spanish, USP, tins lb 45.00 - —
Safrol, dms lb. .90 - 1.05
Sage, Cretan, bgs lb 11 - —
Dalmatian, bgs lb. 44 - —
Italian lb 26 Nom
Sago flour, raw, bgs lb 07 .07¼
refd., bgs lb 08½- .09
Sal soda (see Soda sal).
Salicylamide, 100-lb. dms lb. 1.23 - —
Salol, NF, gran., bbls. kgs lb 1.15 —
Powdered salol 25c higher
Salt, rock, paper bgs., c.l. 100 lbs. 1.02½- —
table, vacuum, common, fine, paper bgs., c.l 100 lbs. 1.27½- —
Saltcake, dom., bulk, works, 100% Na_2SO_4 basis ton 28.00 - —
Saltpeter (see Potassium nitrate)
Sandalwood, East Indies chips bgs. .65 - .66
powd. fib dms lb 75 - .76
Schaeffer's salt, paste, dms., frt. alld. 100% basis lb. .95 - —
powd. bgs., frt. alld. 100% basis lb .95 - —
Scopolamine hydrobromide, USP bots oz. 13.50 -16.50
Seidlitz mixture, bbls. 5,000-lb. lots lb. 30½- —
smaller lots lb. .31 .32
Selenium, powd., 99½%, dms., dlvd. lb. 13.50 -15.50
Senega root, bls lb. 2.73 - —
Senna leaves, Alex., whole and half, bls lb. .19 - —
siftings lb. .17 - —
Tinnevelly, No. 1, bls lb. .16 - .18
No. 2, bls. lb. .13 - .15
No. 3, bls lb. .11 - .13
powdered, bbls., bxs lb. .15 - —
pods, bls. lb. .14 - —
Serpentaria, root, bls lb. 5.50 - —
Sesame seed, Egyptian, hulled, bgs. lb. .22½- —
nat., bgs. lb. .17 - —
Nicaragua, hulled, shipt., bgs. lb. .25 - —
nat., bgs lb. .16½- —
Salvadorian, natural, bgs lb. .21½- —
Indian, natural, bgs. lb. N.P.
Shellac, bleached, bonedry, bgs., 2,500-lb. lots lb. .54 - —
bbls., 1,500-lb. lots lb. .55 - —
kgs., 1,500-lb. lots lb. .56 - —
refd., bgs., 1,500-lb. lots lb. .64 - —
bbls., 1,500-lb. lots lb. .65 - —
kgs., 1,500-lb lots lb. .66 - —

Bonedry shellac prices for less than 1,500 lb. lots 1c. per lb. higher for all packages.

Lemon, No. 1, bgs., 10-bg. lots lb. .47 - —
No. 2, bgs., 10-bg. lots lb. .45 - —
Superfine, bgs., 10-bg. lots lb. .44 - —

Shellac in 1 to 10-bg. lots 1c. per lb. more.

Shingle stain oil (see Oil, shingle stain).
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton 25.00 - —
l.c.l., works, exwnse ton 45.00 -55.00
hard-quartz, 99½%, 325 mesh, bgs., c.l., works ton 20.00 - —
l.c.l., works ton 25.00 -30.00
140 mesh, bgs., c.l., works ton 15.00 - —
l.c.l., works ton 20.00 - —
Silicon tetrachloride, tech., dms., c.l., works lb. .18 - —
l.c.l., works lb. .22 - .30½
tanks, works lb. .17 - —
Silver bullion, ingots, cs. Troy oz. .91¼- —
Cyanide fib dms., 2,500-oz. lots. oz. .87 - —
1,000-oz. lots oz. .87½- —
500-oz. lots oz. .87¼- —
100-oz. lots oz. .87¾- —
Nitrate, CP, cryst., bots., 2,500-oz. lots oz. .62⅜- —
1,000-oz. lots oz. .63⅛- —
500-oz. lots oz. .64⅛- —
250-oz. lots oz. .64⅜- —

USP granular silver nitrate 4c. per oz higher.

Proteinate, mild, USP, bots., dms., 1,000-oz. lots oz. 1.15 - —
strong, NF bots. dms., 1,000-oz. lots oz. 1.10 - —
Soapbark, whole, bls lb. .38 - .40
crushed, bls., bbls lb. .45 - —
powd., bbls. lb. .45 - —
Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. 1.90 - —
l.c.l., stock points 100 lbs. 3.00 - 4.77
bulk, c.l., works 100 lbs. 1.60 - —
light, 58%, paper bgs., c.l., works 100 lbs. 1.85 - —
l.c.l., stock points 100 lbs. 3.95 - 4.72
bulk, c.l., works 100 lbs. 1.55 - —
Soda, caustic, flake, 76%, dms., c.l., works, frt. equald 100 lbs. 4.70 - —
l.c.l., stock points 100 lbs. 5.80 - —
liq., 50%, sellers tanks, works, dry basis 100 lbs. 2.90 - —
rayon type, sellers, tanks, works, dry basis 100 lbs. 2.90 - 3.00
73%, sellers' tanks, works, dry basis 100 lbs. 3.00 - —
rayon-type sellers' tanks, works, dry basis 100 lbs. 3.00 - 3.10
solid, 76%, dms., c.l., works, 100 lbs. 4.30 - —
l.c.l., stock points 100 lbs. 5.50 - —
Sal. conc., bgs., c.l., works 100 lbs. 2.50 - —
smaller lots, works 100 lbs. 2.80 - —
Sodium acetate, anhyd., bgs., c.l., frt. equald lb. .13 - —
dms., l.c.l., frt. equald lb. .13¾- —
NF, 60% gran., dms., c.l., works lb. .14 —
l.c.l. works lb. .15½- —
Alginate, NF, white powd., dms., 300 lbs. or more lb. .93 - —
p-Aminobenzoate, dms., 1,000-lb. lots or more lb. 2.35 - —
smaller lots lb. 2.45 - 2.55
p-Aminosalicylate, dms., 100 lbs. or more, frt. adjusted lb 2.70 —
Antimoniate, bbls. c.l., dlvd. E. lb. .28 - —
l.c.l., dlvd. E lb. .29½- —
Arsenate, 45% arsenic pentoxide, dms., c.l., works lb. .12½- —
l.c.l., works lb. .13¾- .14½
Sodium arsenite, 90%, pink powder, 75% arsenious oxide, dms., works lb. .12¼- —
l.c.l., works lb. .13 .14½
soln. dms. works gal 59 .67
Ascorbate, dms., 25-50 kilo lots. kilo. 12.00 - —
10-kilo lots kilo 12.35 - —
5-kilo lots kilo 12.75 - —
1-kilo lots kilo. 13.00 - —
bots., 500-gram lots kilo. 13.50 - —
Benzoate, tech., bbls., dms., lots or more lb. .39 - —
USP bbls., dms. 100-lb lots, or more lb 46 —
Bicarbonate, USP, gran., bgs., c.l., works 100 lbs. 2.95 - —
l.c.l., works 100 lbs. 3.85 - —
powd., bgs., c.l., works, 100 lbs. 2.55 - —
l.c.l., works 100 lbs. 3.45 - —
Bichromate, gran., bgs., c.l., t.l., works lb. .13 - —
l.c.l., works lb. .13½- .14¾
Bifluoride, bbls. c.l. works, frt equald lb. .19½- —
l.c.l., same basis lb. .1990- —
Bisulfate, bulk., c.l., works 100 lbs. 2.00 —
dms., c.l. frt. equald 100 lbs 3.00 3.60
l.c.l. frt. equald 100 lbs 3.50 4.10
Bisulfite, anhyd., bgs., c.l., works, 100 lbs. 5.00 - —
l.c.l., works 100 lbs. 5.40 - —
soln., 35° bbls. c.l., works, 100 lbs 1.55 - —
l.c.l., works 100 lbs 2.05 —
Sodium borate (see Borax).
Bromide, USP, bbls., works lb. .38 - —
Carboxymethyl cellulose (see CMC).
Carbonate, cryst., monohydrated (see Soda, sal).
monohydrated, bgs., c.l., works, 100 lbs. 3.10 - —
l.c.l., works 100 lbs. 3.50 - —
Chlorate, cryst., dms., c.l., works, lb. .09 —
l.c.l., works lb. .09½- .10½
Chloride, tech (see Salt)
USP, dms., 300 lbs. or more lb. .08 - —
Chlorite, tech., dms., c.l., works, lb. .58 - —
20-ton lots or more, works lb. .66 —
smaller lots, works lb. .70 .73
Chloroacetate, tech., dms., c.l., works lb. .27 - —
l.c.l., works lb .28 —
Chromate, anhyd., fiber dms., c.l., t.l., works lb. .14¾- —
l.c.l., same basis lb. .15¼- .16½
tetrahydrate, bgs., c.l., t.l., works lb. .1015- —
l.c.l. lb. .1065- 1190
Citrate, anhyd., dms. lb. .62 - —
NF VIII, gran., dms lb. .26½ .27½
USP XIV, gran., dms lb. .29½ .30½
Sodium citrate USP powd. prices ½c. higher
Cyanate, dms., 1,000-lb. lots, works lb .85 1.10
smaller lots, works lb 1.00 1.25

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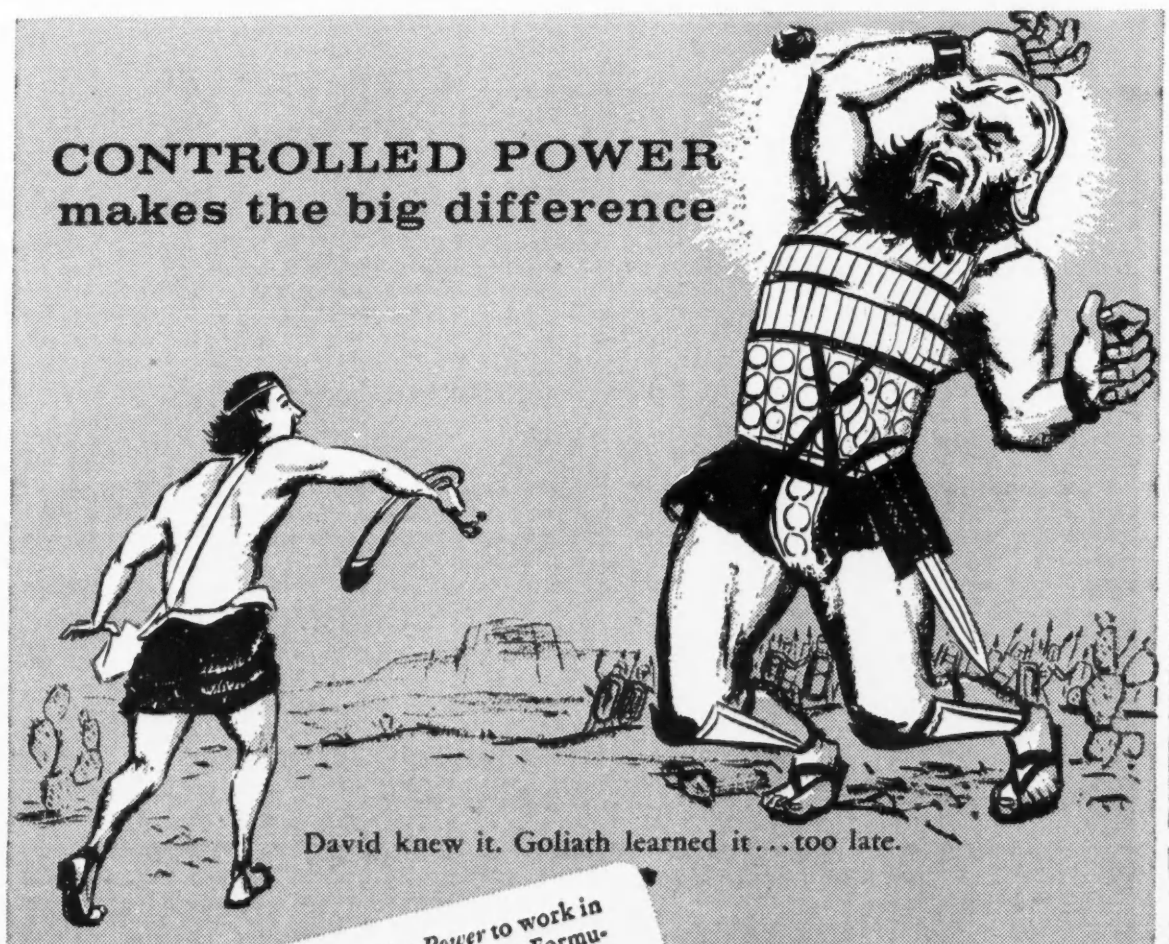
Sodium cyanide, flake, 96-98%, dms., c.l., or 20,000-lb. lots lb. .178 - —
over 1,000-lb. lots lb. .188 - —
100-lb. to 1,000-lb lots lb. .198 - —
Granular sodium cyanide 1c. higher.
Diacetate, 33-35% acidity, 250-lb. dms., works lb. .15 - —
l.c.l. works lb. .15¾ - —
anhyd., dms., c.l. works lb. .18 - —
l.c.l. works lb. .18¾ - —
Ferrocyanide, bgs., 10-ton lots lb. .13½ - —
smaller lots. lb. .14 - —
Fluoride, white, 97%, fib. dms., c.l. works, frt. equald lb. .1390 - —
l.c.l. works lb. .1430 - —
Formate, bgs., c.l., works 100 lbs. 7.60 - —
l.c.l., works 100 lbs. 8.65 - —
Gentisate, 100-lb. fib. dms lb. 5.50 - —
Gluconate, refd. dms. lb. .80 - .83
tech, dms lb. .35 - —
Glutamate, mono., dms., c.l lb. 1.20 - —
Hydride, dms., works lb. 1.80 - 3.00
Hydrosulfide (see Sodium sulfhydrate)
Hydrosulfite, dms., c.l. frt. alld. lb. .24 - —
l.c.l., frt. alld. lb. .24½ - —
Hydroxide, NF, pellets, 100-lb. dms., 1 to 100-dm. lots lb. .18½ - .23
technical (see Soda, Caustic).
Hypophosphite, NF, dms., ton-lots or less lb. .95 - .98

Sodium hyposulfite, anhyd., tech., bgs., c.l., works 100 lbs. 7.25 - —
l.c.l., works 100 lbs. 7.65 - —
photo grade, bgs., c.l., works, 100 lbs. 8.05 - —
l.c.l., works 100 lbs. 8.45 - —
Hexahydrate, pea cryst., bgs., c.l., works 100 lbs. 5.15 - —
l.c.l., works 100 lbs. 5.55 - —
photo grade, bgs., c.l., works, 100 lbs. 7.75 - —
l.c.l., works 100 lbs. 8.05 - —
Pentahydrate, tech., bgs., c.l., works 100 lbs. 5.15 - —
l.c.l., works 100 lbs. 5.55 - —
Iodide, USP, bots., dms lb. 2.55 - —
Lactate, edible, 50%, cbys., dms., works lb. .21½ - —
60% cbys. dms works lb 2½ - —
tech. 50%, cbys., dms. works lb. .16½ - —
Lauryl sulfate, dms., c.l., dlvd lb. .19 - —
l.c.l., dlvd lb. .19½ - .20¾
tanks, dlvd lb. .18 - —
Metabisulfite (see Sodium bisulfite).
Metaborate, octahydrate, gran., bgs., c.l., works ton.85.00 - —
ton lots, ex whse ton.137.50 - —
smaller lots, ex whse. ton.142.50 - —
Tetrahydrate, dms., c.l., works, ton.204.00 - —
ton lots, ex whse ton.242.50 - —
smaller lots, exwhse ton.247.50 - —
Metallic bricks, 14,000-lb. lots or more, works lb. .19½ - —
fused, 14,000-lb. lots, works, lb. .19 - —
tanks, works lb. .16 - .17

Sodium metanilate, bbls., frt. alld. lb. .62 - —
Metasilicate, anhyd., bgs., c.l., works 100 lbs. 5.70 - —
l.c.l., works 100 lbs. 6.15 - 6.10
dms., c.l. 100 lbs. 6.20 - —
l.c.l. 100 lbs. 6.65 - 6.55
Pentahydrate, bgs., c.l., works, 100 lbs. 4.45 - —
l.c.l. works 100 lbs. 4.85 - 6.75
dms., c.l. works 100 lbs. 4.95 - —
l.c.l., works 100 lbs. 5.35 - 7.25
Molybdate, anhyd., dms., works, frt. equald lb. .92 - .96
cryst., dms., works, frt. alld lb. .73 - .74
Monohydrate (see Sodium carbonate monohydrated).
Naphthionate, bbls lb. 70 - —
Nitrate, crude, dom. bgs., c.l., works ton.47.00 - —
bulk, c.l., works ton 43.50 - —
imp. 100-lb. bgs., c.l., Atl. Gulf, Pac., whse ton.49.50 - —
bulk, c.l. same basis ton.46.00 - —
Nitrite, USP, bbls., c.l., works, frt. equald 100 lbs. 8.50 - —
l.c.l., same basis 100 lbs.10.50 - —
Orthosilicate, conc., dms., c.l., works 100 lbs. 6.70 - —
l.c.l., works 100 lbs. 7.05 - 7.65
hydrated, flake, bbls., c.l., works, 100 lbs. 5.65 - —
l.c.l., works 100 lbs. 7.60 - 7.90
Oxalate, 88%, bgs., works 100 lbs.10.85 - —
Para-aminobenzoate (see Sodium p-Aminobenzoate).
Para-aminosalicylate (see Sodium p-Aminosalicylate)
Pentachlorophenate, briquets, bgs., c.l., works, frt equald lb. .26 - —
l.c.l. same basis lb. .27½ - .34
pellets, bgs., c.l., same basis lb. .26 - —
l.c.l., same basis lb. .27½ - .34

Sodium pentachlorophenate, powd., bgs., dms., c.l., same basis lb. .25 - —
l.c.l. same basis lb. .26½ - .33
Sodium pentachlorophenate, 20,000 lbs., min. truckloads, ¼c. per lb. over carlot prices.
Perborate, NF, tech., bgs., c.l., works lb. .19 - —
l.c.l., works lb. .21 - —
Peroxide, dms., c.l., dlvd. E. of Miss. lb. .20 - —
l.c.l. same basis lb. .20½ - .21
Phenolsulfonate, USP IX, gran., dms lb. .44 - .45
Phosphate, dibasic, anhyd., bgs., c.l., frt. equald 100 lbs. 7.65 - —
l.c.l., works 100 lbs. 8.05 - 8.65
duohydrate, bgs., c.l., frt. equald 100 lbs. 7.45 - —
l.c.l., frt. equald 100 lbs. 7.85 - 8.45
USP dried powd bgs., dms., works lb. .19 - 20¼
monobasic anhyd., bgs., c.l., frt. equald 100 lbs. 8.70 - —
l.c.l., frt equald 100 lbs. 9.10 - 9.70
tribasic, anhyd., bgs., c.l., frt. equald 100 lbs. 8.00 - —
l.c.l., frt. equald 100 lbs. 9.05 - 9.65
cryst., bgs., c.l., t.l., frt. equald 100 lbs. 4.40 - —
l.c.l., frt. equald 100 lbs. 4.80 - 5.40
Sodium phosphates in dms. 60c higher than bgs.
Prussiate, yellow (see sodium ferrocyanide).
Pyrophosphate, acid, bgs., c.l., works, frt. equald 100 lb.10.85 - —
l.c.l., works 100 lbs.11.60 -11.85
Ferric, dms., c.l., t.l., works lb. .36 - —
l.c.l., works lb. .37 - .39
tetrabasic, anhyd., bgs., c.l., works, frt. equald 100 lbs. 7.52½ - —
l.c.l., frt. equald 100 lbs. 7.92½ - 8.52½
Salicylate, USP, dms lb. .74 - .76
Sesquicarbonate, bgs., c.l., works, 100 lbs. 2.35 - —
l.c.l., dlvd, zone 1 100 lbs. 4.10 - 4.35
zone 2 100 lbs. 4.35 - 4.60
zone 3 100 lbs. 4.75 - 4.90
zone 4 100 lbs. 5.35 - 5.60
Sales zones are: (1) Atl. States E. of Miss., R. and N. of south bound of Ky. and Va., Ala., La., and Miss., south of 31° Tex. E. of 100°; S. of 31° Fla.; also Me., N. H., and Vt., in which there are special county zones; Davenport, Ia., and St. Louis; (2) Ark. E. of 93° Ga.; Iowa (except Davenport), Minn., Mo. (except St. Louis), Neb. E. of 98° N. C., S. C., Tenn. and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No. of 31°; (3) Ark. W. of 96°, Kan., Neb. W. of 98°, N. D., Okla., S. D., Tex., W. of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo. and El Paso, Tex.
Sesquisilicate, hydrated, bgs., c.l., works 100 lbs. 5.00 - —
l.c.l., works 100 lbs. 5.35 - —
dms., c.l., works 100 lbs. 5.50 - —
l.c.l., works 100 lbs. 5.85 - —
Silicate, liq., 40° Be. 3.2, turbid, dms., c.l., works 100 lbs. 1.45 - —
l.c.l., works 100 lbs. 1.80 - 2.30
tanks, works 100 lbs. 1.10 - —
47° Be. turbid, 1:2.9, dms., c.l., works 100 lbs. 2.10 - —
l.c.l., works 100 lbs. 2.70 - 2.95
tanks, works 100 lbs. 1.75 - —
52° Be, turbid, 1:2.4, dms., c.l., works 100 lbs. 2.45 - —
l.c.l., works 100 lbs. 2.80 - 3.30
tanks, works 100 lbs. 2.10 - —
solid, 1:3.2, bgs., works ton.62.50 - —
Silicofluoride, bgs., c.l., works lb. .075 - —
l.c.l., works lb. .079 - —
Sodium silicofluoride in dms., 0.4c. per lb. higher.
Stannate, dms., works, frt. alld. E lb. .584 - .638
Sulfa drugs (see Sulfa name).
Sulfanilate, bbls., works lb. .22 - —
Sulfate, NF, VII, dried, powd., dms lb. .22½ - —
tech., anhyd., bgs., c.l., dlvd. E ton.52.00 - —
detergent, rayon grade, bgs., c.l., works ton.34.00 - —
bulk, c.l., works ton.31.00 - —
USP, cryst., fib. dms lb. .17½ - .18
gran., fib. dms lb. .17½ - .18
Sulfhydrate, flake, 70-72%, dms., c.l., works lb. .06¾ - —
l.c.l., works lb. .07¾ - —
liq., 40-44%, tanks, works, 100% basis ton.120.00 - —
Sulfide, flake, dms., c.l., works, E., frt. equald lb. .05½ - —
l.c.l., same basis lb. .06½ - —
fused, bbls., c.l., works E., frt. equald lb. .05 - —
l.c.l., same basis lb. .06 - —
Sulfite, anhyd., bgs., c.l. 100 lbs. 3.25 - —
l.c.l., same basis 100 lbs. 3.75 - —
Sulfocyanide, CP (see Sodium thiocyanate).
Tetraborate (see Borax).
Tetrasulfide, liq., 40%, dms., c.l., c.l., works lb. .04 - —
l.c.l., works lb. .05 - —
Thiocyanate, CP, dms lb. .55 - .65
tech., anhyd., dms., 1 ton lots or more, works lb. .317 - —
less than ton lots, works lb. .337 - —
Thiosulfate, NF, cryst., bbls lb. .13½ - —
tech. (see Sodium hyposulphite).
Titanate, ctns., c.l., works lb. .10½ - —
5-ton lots, works lb. .10¾ - —
1-ton or less, works lb. .11 - —
Toluene sulfonate, dms., c.l. or t.l. lb. .36 - —
l.c.l. lb. .42 - —
Trichloroacetate, 90%, 100-lb. dms., c.l., frt. alld. E lb. .37½ - —
l.c.l., frt. adjusted, E lb. .39½ - —
50-lb. dms., c.l. frt. alld. E. lb. .38 - —
l.c.l., frt. adjusted E lb. .40 - —
10-lb. cns., c.l., frt. alld E lb. .44 - —
l.c.l., frt. adjusted E lb. .46 - —
Prices on Sodium trichloroacetate W. of the Rockies are 1¾c. per pound higher.
Tripolyphosphate, bgs., c.l., works, frt. equald 100 lbs. 7.87½ - —
l.c.l., same basis 100 lbs. 8.27½ - 8.87½
Trisilicate, powd., 1:3.2, bgs., c.l., works 100 lbs. 8.65 - —
l.c.l., works 100 lbs. 9.40 - 9.80
dms., c.l., works 100 lbs. 9.05 - —
l.c.l., works 100 lbs. 9.80 -10.20
Tungstate, tech., kgs., dlvd. E lb. 2.15 - —
Sodium-ammonium phosphate, bbls., works, frt. equald lb. .23 - —
Sodium-carboxymethyl cellulose (see CMC).
Sodium-cinchophen (see Cinchophen-sodium).
Sodium-formaldehyde sulfoxylate, dms., c.l., dlvd lb. .21 - —
l.c.l., same basis lb. .21½ - —
Sodium-zirconyl sulfate, fiber dms., 1,000-lb lots or more works lb. .28 - —
smaller lots, same basis lb. .30 - —



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Cowles CHEMICAL COMPANY
CLEVELAND 3, OHIO

Solvent naphtha, coaltar, high flash, tanks, frt. equald	gal.	.31 - .98
petroleum (see Petroleum solvent, partial aromatic)		
Sorbitan monostearate, fib. dms., 20,000-lb. lots, works	lb.	.32 - —
10,000 to 20,000-lb lots, works.	lb.	.34 - —
smaller lots, works	lb.	.37 - .39
Tristearate, fib. dms., 20,000-lb. lots, works	lb.	.33 - —
10,000 to 20,000-lb lots, works.	lb.	.35 - —
smaller lots, works	lb.	.38 - .40
Sorbitol, cryst., resin grade, pellets, dms., c.l., works	lb.	.23 - —
1 to 5-ton lots, works	lb.	.25 - .26
powd., dms., 1 to 5-ton lots, works	lb.	.38 - .39
soln., comi. aqueous dms., c.l., works	lb.	.24¼ - —
ton lots, works	lb.	.25 - —
smaller lots, works	lb.	.25¼ - —
tanks, works	lb.	23¼ - —
reg. 70% aqueous, dms., c.l., works	lb.	.16 - —
ton lots, works	lb.	.16¾ - —
smaller lots, works	lb.	.17 - —
tanks works	lb.	15 - —
Soybean meal, 44% bulk, Decatur,	ton.	46.50 - —
protein chemically isolated, bgs., c.l., works	lb.	.23 - —
mechanically refd. bgs., l.c.l., works	lb.	.066 - —
Sparteine sulfate, cns	oz.	.80 - .90
Spearmint leaves, dom., bls	lb.	.75 - —
Spruce extract, liq., reg tanks, works	lb.	.01¾ - —
powd. super bgs., c.l., works	lb.	.05¼ - —
l.c.l., works	lb.	.05½ - —
Squill, white, bls	lb.	.16 - .18
powd. bbls. bxs	lb.	.17 - .20
St. John's bread edible bls	lb.	.13 - .15
Stannic chloride anhyd., dms., works	lb.	.799 - .809
Oxide, dms., dlvd, E	lb.	1.15½ - 1.16½
Stannous chloride anhyd. dms., works	lb.	.927 - 1.421
hydrous, cryst., dms., works	lb.	.81½ - .82½
Sulfate, dms., works	lb.	.962 - 1.002
Starch corn pearl paper bgs., c.l.,	100 lbs.	7.27 - —
c.l.	100 lbs.	7.42 - —
powd., paper bgs., c.l.	100 lbs.	7.39 - —
l.c.l.	100 lbs.	7.44 - —
Prices for corn starch in cotton bags 15c per 100 lbs higher		
Potato, dom. Idaho bgs., c.l., works	lb.	.06 - —
Maine, bgs., c.l., works	lb.	.06½ - —
ex whse, N. Y.	lb.	.08¼ - .09¼
Rice bgs l.c.l	lb	.15½ - .16
Wheat, bgs	lb	.08½ - .09
Star root (see Helonias root)		
Stargrass Root (see Aletris root).		
Stavesacre seed, bgs	lb.	.60 - .61
Stearine oleo (see Oleostearine).		
Stramonium leaves, bgs	lb	.18 - .20
Soybean meal 44% bulk, Decatur,		
Streptomycin hydrochloride bulk,	gram. lb.	.0750 - .0775
Strontium bromide, NF, dms., 150-lb. fib. dms	lb.	.88 - —
Carbonate, pure, dms. 5-ton lots or more, works	lb.	.35 - —
1-ton lots, works	lb.	.37 - —
tech., dms., works	lb.	.19 - —
Chromate, bbls., works	lb.	.46 - —
Iodide, pars, 25-lb. lots	lb	3.42 - —
Nitrate, bbls., c.l., works	100 lbs.	11.00 - —
l.c.l., works	100 lbs.	12.00 - —
Salicylate, NF dms	lb	1.78 - —
Sulfate, air floated, 90%, 325 mesh, bgs., works	ton.	56.70 - 66.15
Strophanthin, K., bots. G (see Ouabain, USP).	oz.	25.00 - 25.50
Strophanthus seed, Kombi, biologically tested, bgs	lb	3.50 - 3.75
Styrax USP es	lb	.78 - .80
Styrene monomer, polymer grade, 99½% dms. c.l. frt. alld.	lb.	.22½ - —
t.c.l. same basis	lb.	.23½ - —
tanks, same basis	lb.	.21½ - —
synthetic rubber grade, 99% dms. c.l. frt. alld	lb.	.18 - —
t.c.l. same basis	lb.	.19½ - —
tanks, same basis	lb.	.16 - —
Styrolyl acetate bots	lb.	1.45 - 1.70
Sucrose, refd., white, bgs., refy., E	lb.	.0885 - —
Octa-acetate, denaturing grade, 100-200-lbs., bgs., l.c.l., works	lb.	.76 - —
Sugar (see Sucrose).		
Sulfabenzamide, dms	lb	4.00 - 4.56
Sodium dms	lb	4.10 - 4.60
Sulfacetamide, fib. dms	lb	4.00 - 4.20
USP, same basis	lb.	5.00 - 5.20
Sodium fib dms	lb	5.00 - 5.20
USP, same basis	lb.	5.20 - 5.40
Sulfadiazine USP, microcrystals, dms	lb.	10.60 - 11.10
powd dms	lb.	10.25 - 10.75
Sulfadiazine-sodium USP dms	lb.	11.25 - 11.75
microcrystals, dms	lb.	11.60 - 12.10
Sulfaguanidine USP dms	lb	2.50 - —
Sulfamerazine USP microcrystals	lb.	10.65 - 11.15
Sulfamerazine-sodium USP dms.	lb.	11.25 - 11.75
Sulfamethazine microcrystals, dms.	lb	8.90 - 9.40
powd. dms	lb	8.50 - 9.00
Sulfanilamide USP 30-80 mesh, dms	lb.	1.40 - 1.60
microcrystals dms	lb	1.70 - 1.90
powd. dms	lb.	1.30 - 1.50
Quinoxaline, veterinary, dms	lb	6.40 - 6.75
Sulfapyridine NF powd. bots. tins.	lb.	7.00 - 7.50
Sulfapyridine-sodium monohydrate, dms	lb	7.50 - 6.00
Sulfathiazole, NF, microcrystals, dms	lb	2.85 - 3.00
powd dms	lb	2.50 - 2.65
Sulfathiazole-sodium, NF, dms	lb.	2.75 - 2.90
Sulfur, coml., flour, bgs., mines.	100 lbs.	2.55 - —
bbls., mines	100 lbs.	3.30 - —
lump, bgs., mines	100 lbs.	2.45 - —
bbls., mines	100 lbs.	2.90 - —
crude, bulk, c.l., mines, contract.	long-ton.	26.50 - —
export t.o.b vessels, Gulf ports	long-ton.	28.00 - —
domestic and Canada, f.o.b vessel Gulf port	long-ton.	28.00 - —
refd., flowers, USP, bgs., mines	100 lbs.	4.25 - —
bbls., mines	100 lbs.	5.50 - —
flour, light, bgs., mines	100 lbs.	3.85 - —
bbls., mines	100 lbs.	4.75 - —
lump, bgs., mines	100 lbs.	3.55 - —
rolls, bgs., mines	100 lbs.	4.10 - —
bbls., mines	100 lbs.	4.65 - —
salt block, bbls., mines.	100 lbs.	3.75 - —
virgin block, bbls., mines.	100 lbs.	3.70 - —
rubbermakers, coml., reg. bgs., mines	100 lbs.	2.65 - —
bbls., mines	100 lbs.	3.80 - —
98-100% passing through 325 mesh, bgs., mines	100 lbs.	2.75 - —
bbls., mines	100 lbs.	3.90 - —
Sulfur, rubbermakers, refd., bgs., mines	100 lbs.	3.50 - —
bbls., mines	100 lbs.	4.55 - —
treated, 2.5% mineral oil, bgs., mines	100 lbs.	2.95 - —
bbls, mines	100 lbs.	4.10 - —
Dichloride, dms., c.l., works, frt. equald	lb.	.04 - —
t.c.l. same basis	lb.	.04¾ - —
tanks, same basis	lb.	.03¾ - —
Dioxide, liq., coml., cyls. works, frt. equald	lb.	.10 - .12
multi unit cars, works	lb.	.0535 - —
tanks, works	lb.	.045 - —
refrigeration, 150-lb. cyls., dlvd.	lb.	.30 - —
Monochloride, 55-gal. dms., c.l., frt. equald	lb.	.04 - —
t.c.l. same basis	lb.	.04¾ - —
tanks, same basis	lb.	.03¾ - —
Sumac leaves, 28% tannin, bgs., ex-dock	ton.	130.00 - —
ground, bgs., ex-dock	ton.	130.00 - —
Superphosphate, run-of-pile, under 22% a.p.a pulv., bulk, c.l., Baltimore	unit-ton.	.88 - .91
Carteret, N. J	unit-ton.	.88 - .91
triple, 48% or more a.p.a., pulv., bulk c.l., East Tampa, Fla.	unit-ton	.98 - —

T

2,4,5-T, dms., c.l., works, frt. equald.	lb	1.18 - —
t.c.l., same basis	lb	1.25 - —
Isopropyl ester, dms., c.l., works, frt. equald	lb	1.24 - —
t.c.l., works	lb	1.29 - —
Talc, dom., ord., Calif., grd., bgs., c.l., works	ton.	33.00 - 39.50
Vermont off color grd., bgs., c.l., works	ton.	19.40 - —
t.c.l., works	ton.	37.00 - —
fibrous, New York, grd., bgs., c.l., works	ton.	28.00 - —
t.c.l., works	ton.	31.00 - 36.00
99.5%, 325 mesh, bgs. c.l. works	ton.	31.00 - —
t.c.l., works	ton.	34.00 - —
99.95% micronized, bgs. works	ton.	38.00 - —
imp., Canadian grd. bgs., c.l., mines	ton	20.00 - 25.00
Tallow, edible, tanks, dlvd.	lb.	.14 - —
inedible, fancy, bleachable, tanks, dlvd.	lb.	.07¾ - —
guaranteed, dms., f.a.s.	lb.	.09¼ - —
No. 1, tanks, dlvd.	lb.	.06⅝ - —
prime, tanks, dlvd	lb.	.07⅜ - —
special tanks, dlvd	lb.	.07 - —
sulfonated, 25%, bbls., l.c.l.	lb.	.08⅝ - .08⅞
50%, bbls., l.c.l.	lb.	.09⅜ - .10⅛
Tankage, animal, feeding, 9-11% ammonia, bulk	unit-ton.	4.75 - —
Chicago, bulk	unit-ton.	5.50 - —
Tapioca flour, Brazilian bgs. ex whse	lb.	.10½ Nom.
Tar acid oil, 15-18%, dms., c.l., frt. equald	gal.	.47 - .49
t.c.l., same basis	gal.	.50 - .51
tanks, same basis	gal.	.39 - —
25-28%, dms., c.l., same basis.	gal.	.54 - .56
t.c.l., same basis	gal.	.57 - .58
tanks, same basis	gal.	.46 - —
Tar acid oil, 50-53%, dms., c.l., same basis	gal.	.70 - .72½
t.c.l., same basis	gal.	73½ - 74½
tanks, same basis	gal.	62½ - —
Coal (see Coaltar).		
Tartar, emetic (see Antimony-potassium tartarate).		
Terpine glycol ether, dms., c.l., works	lb.	23½ - —
t.c.l. works	lb.	25½ - —
tanks works	lb	22 - —
Hydrate, NF, cryst., powd., 150-lb fib. dms	lb.	.70 - —
Terpinol, dms., t.c.l., dlvd E	lb	23¾ - —
extra dms	lb	41 - 60
prime, dms	lb	30 - 45
Terpinyl acetate extra cns. dms.	lb	60 - 75
prime, dms	lb	55 - 70
Propionate dms	lb	1.75 - 9.00
Terra alba (see Gypsum)		
Testosterone USP 100-gm. lots, bots	gram.	.70 - —
Propionate USP 100-gm lots, bots	gram.	.68 - —
Tetrachloroethane dms. works	lb.	14½ - —
Tetrasodium pyrophosphate (see Sodium pyrophosphate)		
Tetrachloroethylene tech (see Perchloroethylene)		
USP 55 gal dms. works	lb.	.20½ - .21½
smaller dms. works	lb.	23½ - .25
Tetraethyl orthosilicate dms., c.l., dlvd E	lb.	.61½ - —
t.c.l. dlvd. E	lb.	.62½ - —
Pyrophosphate, 40% cns., dms., frt equald	lb.	75 - —

Sodium Tripolyphosphate

Tetrasodium Pyrophosphate
ANHYDROUS

Sodium Polyphos
(SODIUM HEXAMETAPHOSPHATE)
(SODIUM TETRAPHOSPHATE)

Trisodium Phosphate
CRYSTALLINE
MONOHYDRATE

Sodium Phosphates

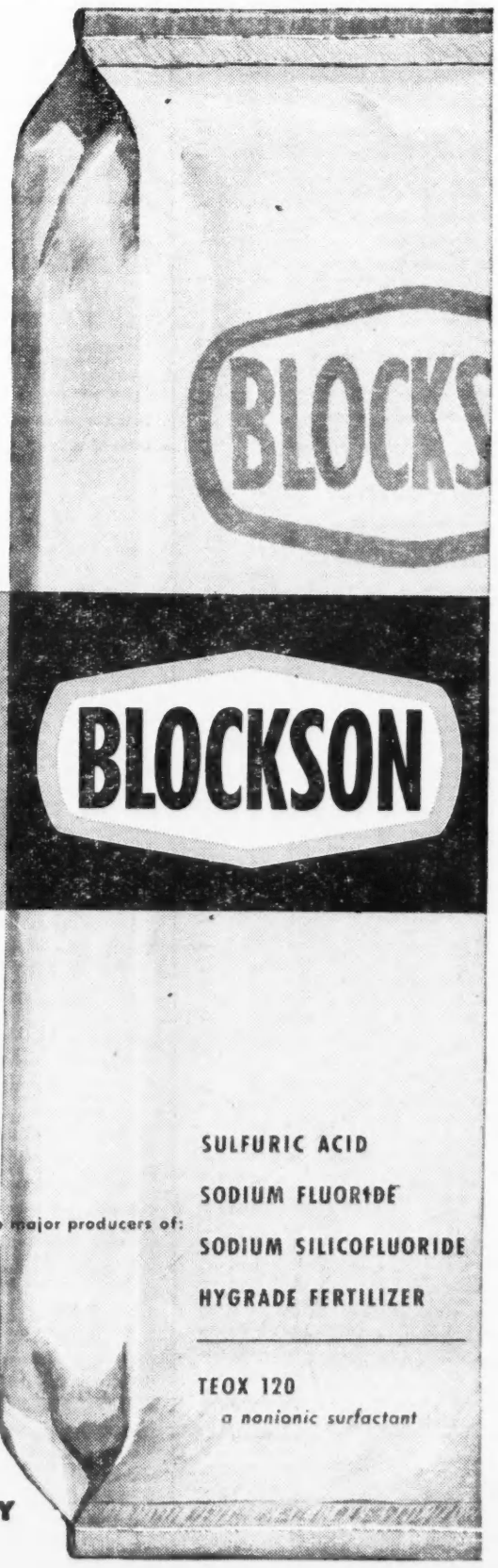
Trisodium Phosphate
Chlorinated

Disodium Phosphate
ANHYDROUS
CRYSTALLINE

Monosodium Phosphate
ANHYDROUS
MONOHYDRATE

Sodium Acid Pyrophosphate

BLOCKSON CHEMICAL COMPANY
Division of Olin Mathieson Chemical Corporation
JOLIET, ILLINOIS



also major producers of:
SULFURIC ACID
SODIUM FLUORIDE
SODIUM SILICOFLUORIDE
HYGRADE FERTILIZER

TEOX 120
a nonionic surfactant

Tetraethylenepentamine dms., c.l., dlvd. E lb. .40 - —
l.c.l. dlvd E lb. .50 - —
tanks, dlvd. E lb. .47 - —
Tetrahydrofuran, dms. c.l., or t.l., works lb. .36½- —
l.c.l. or t.l.l., works lb. .37 - —
tanks, works lb. .35 - —
Tetrapotassium phosphate (see Potassium phosphate)
Thallium metal dlvd lb.12.50 - 15.00
Sulfate 99% bots dlvd lb 8.00 - 13.00
Theobromine, NF, fib. dms. lb. 4.00 - —
And sodium acetate USP fib dms lb. 4.45 - —
Sodio-Salicylate, NF, fib. dms lb. 3.60 - —
Theophylline anyhd or USP, 100-lb dms lb 3.65 - —
Thiamine hydrochloride, USP regular fib dms kilo.60.00 - —
ampule grade, fib. dms kilo.62.00 - —
Mononitrate, USP fib dms kilo 62 00 - —
Thiocarbanilide dms. ton lots lb 72 - —
less ton lots lb. .74 - —
Thiodiphenylamine (see Phenothiazine)
Thiourea, tech., bgs., t.l., frt. alld. lb. .33 - —
l.c.l., frt. alld lb. .35 - —
Thorium nitrate, purif., fib. dms., 100-lb lots or more, works lb. 3.50 —
dl-Threonine bots., 1-kilo lots. kilo.450.00 500.00
Thymol, fib. dms lb. 2.50 2.75
Iodide, NF, dms. lb. 7.30 —
Timbo root (see Cube root)
Tin chloride (see Stannous chloride, anhydrous).
crystals (see Stannous chloride, hydrous).
Oxide (see Stannic oxide).
Metal (Straits) lb. 1.02¼- —
Sulfate (see Stannous sulfate).
Tetrachloride anhyd.. (see Stannic chloride, anhydrous).
Titanium dioxide anatase, chalk-resistant, bgs., c.l., dlvd lb. .24½- —
l.c.l., dlvd. lb. .25½- —
ceramic, bgs., c.l., dlvd. lb. .22½- —
l.c.l., dlvd. lb. .23½- —
reg., bgs., c.l., dlvd lb. .22½- —
l.c.l., dlvd lb. .20½- —
metallurgical, nat., gran., bgs., c.l., f.o.b. Jacksonville, Fla ton.120.00 - —
Niagara Falls, N. Y., c.l., ton.137.50 - —
5-ton lots ton.142.50 - —
ton lots ton.147.50 - —
rutile nonchalking, bgs., c.l., dlvd. E lb. .26½- —
l.c.l. dlvd E lb. .27½- —
Milled metallurgical titanium dioxide $7.50 per ton higher.
Hydride, cns., works lb. 7.95 9.00
Pigment, calcium-rutile base, reg., bgs., c.l., dlvd lb. .09¼- —
l.c.l., works lb. .09¾- —
high-tinting, dms., c.l. lb. .09 - —
l.c.l. lb. .09½- —
Tetrachloride tech., dms., c.l., works lb. .40¾- —
l.c.l., works lb. .43¾- —
tanks, works lb. .39¾- —
dl-a-Tocopherol, bots kilo.134.20 - —
Acetate, bots kilo.122.00 - —
25% dry, powd., bots kilo.30.50 -32.00
Acid succinate kilo.165.00 - —
o-Tolidine, base, paste, kgs., 100% basis lb. 1.35 - —
dry, kgs., 100% basis lb. 1.40 - —
Hydrochloride, paste, kgs., 100% basis lb 1.35 - —
Tolu balsam, cns lb. 4.85 - —
Toluene (see Toluol).
p-Toluenesulfonamide, powd., dms., works lb. 70 - —
m-Toluidine dms. c.l., works, frt. alld lb. .79 - —
l.c.l. same basis lb. .80 - —
tanks same basis lb. .78 - —
o-Toluidine dms. c.l., works, frt. alld lb. .23 - —
l.c.l. same basis lb. .24 - —
tanks, same basis lb. .22 - —
p-Toluidine, flake, dms., frt. alld lb. .64 - —
solid dms, frt. alld lb. .60 - .61
Toluol, coaltar, indust or nitration, tanks, works:—
Bethlehem, Pa gal. .32 - —
Birmingham dist gal. .32 - —
Chicago, dist gal. .32 - —
Cleveland dist gal. .32 - —
Geneva, Utah gal. .26 - —
Johnstown, Pa gal. .32 - —
Lackawanna, N. Y. gal. .32 - —
Lone Star, Tex gal. .33 - —
Lorain, Ohio gal. .32 - —
Middletown, Ohio gal. .33½- —
Minnequa, Colo. gal. .32 - —
Philadelphia dist gal. .32 - —
Pittsburgh dist gal. .32 - —
Sparrows Point, Md gal. .32 - —
Terre Haute, Ind gal. .35 - —
Youngstown, Ohio gal. .32 - —
Petroleum, indust., 2 , tanks, works:—Albany, N. Y gal. .35 - —
Bayonne, N. J gal. .34 - —
Baytown, Tex. gal. .33 - —
Chicago, Ill. gal. .35 - —
Detroit, Mich gal. .35 - —
Houston, Tex gal. .33 - —
Philadelphia, Pa. gal. .34 - —
Providence, R. I. gal. .35 - —
Wood River, Ill. gal. .34 - —
2,4-Tolylenediamine cryst., fib. dms., c.l., frt. alld lb. .97 - —
l.c.l., frt. alld lb. 1.00 - —
powd., fib. dms., same basis lb. 1.08 - —
Tonka beans, Angostura, cks. lb. No prices.
Brazilian, Surinam, cs lb. 1.35 - —
Totaquine 100-oz. lots, cns oz. 42 - —
Toxaphene, dms., c.l., t.l., works lb. .21 - —
l.c.l., t.l.l., works lb. 27 - —
Triacetin, dms., c.l., dlvd. E, of Rockies lb. .39 - —
l.c.l., same basis lb. .40 - —
tanks, same basis lb. .37 - —
Tributyl citrate tech., non-ref., dms., c.l., frt. alld. E, of Denver lb. .42½- —
l.c.l., frt. alld E of Denver. lb. .43½- —
tanks, frt. alld E of Denver. lb. .40 - —
Phosphate, dms., c.l., works lb. .52½- —
l.c.l., same basis lb. .53½- —
tanks same basis lb. .50 - —
Tributylamine, dms., c.l., works lb. .67½- —
l.c.l., same basis lb. .68½- —
tanks, same basis lb. .65 - —
Trichlorobenzene, dms., c.l., frt. alld. E lb. .14½- —
l.c.l. frt alld E lb. .15½- —
tanks, frt alld E lb. 13 - —
Trichlorobenzene prices in the West 1¾c. higher.
Trichloroethylene, dms., c.l., or t.l., works, frt. equald lb. .12½- —
l.c.l., dlvd E. lb. .14½- —
tanks, works, frt. equald lb. 11¼ - —

1,1,1-Trichloroethane, dms., c.l., works lb. .13½- —
l.c.l., works lb. .14¼- .16¼
tanks, works lb. .11½- .12½
Tricholine citrate, 65% soln., ref. chys works, frt adjusted lb 1.40 1.45
Tricresyl phosphate, coaltar, dms., c.l., dlvd lb. .37 - —
l.c.l. dlvd lb. .38 - —
tanks, dlvd lb. .34½- —
petroleum dms., c.l., dlvd lb. .36½- —
l.c.l. dlvd. lb. .37½- —
tanks, dlvd. lb. .34½- —
Triethanolamine, dms., c.l., dlvd. E lb. .24½- —
l.c.l., same basis lb. .25½- —
tanks, same basis lb. .22 - —
Triethylamine dms., c.l., wor'ks, dlvd E lb. .49 - —
tanks, same basis lb. .46½- —
Triethyl citrate, refd., tech., non-ref. dms. c.l., frt. alld E. of Denver lb. .45¾- —
l.c.l. frt. alld E of Denver. lb. .46¾- —
tanks frt. alld E of Denver. lb. .43¾- —
Phosphate, dms., c.l., dlvd lb. .40½- —
l.c.l. dlvd lb. .41½- —
tanks, dlvd lb. .38 - —
Triethylene glycol, dms. c.l. dlvd. E lb. .21 - —
l.c.l., dlvd., E lb. .22 - —
Triethylenetetramine, dms., c.l., dlvd. E lb. .51½- —
l.c.l., dlvd. E. lb. .52½- —
tanks, dlvd. E. lb. .49 - —
Tri-isopropanolamine, dms., c.l., dlvd. E lb. .23¼- —
l.c.l., dlvd E lb. .24¼- —
tanks, dlvd E lb. .20¾- —
Trimethylamine 23-40% soln., dms., c.l., works frt equald., 100% basis lb. .42 - —
l.c.l. works frt equald, 100% basis lb. .42½- —
tanks works frt. equald, 100% basis lb .33 - —
Trioxane, pure, dms., c.l., t.l., works lb. .50 - —
l.c.l., works lb. .51½- —
Tripentaerythritol bgs., l.c.l., works. lb. .35 - —
Triphenyl phosphate bbls., c.l., frt. equald lb. .40 - —
l.c.l., frt. equald lb. .41 - —
Triphenylguanidine bbls., works lb. .90 - —
tanks, same basis lb. .18½- —
Tripropylene glycol, dms., c.l., frt. alld E lb. .20½- —
l.c.l., frt. alld. E lb. .21½- —
Tripopylene glycol prices 1c. per lb. higher in West.
Phosphate (see Sodium phosphate tribasic).
Tyrothricin, USP bots gram. .75 - .85
dl-Tryptophane, fib. ctns., works. kilo.165.00 —
Tungsten metal powd., 2-5 microns, dms., works lb. 4.20 - —
Turpentine, gum (see Protective Coatings market, Naval Stores).

U

Unicorn root, false (see Helonias root).
True (see Aletris root).
Urea, 46% N. indust., bgs., c.l., t.l., dlvd. E ton.120.00 - —
l.c.l. dlvd E, ex whse ton 140 00 - —
45% N. agricultural, bgs., c.l., (30 tons), dlvd. E ton.105.00 - —
Urea-ammonia liquor, A and B grades N basis, tankcars, Belle, W Va ton.126 00 - —
C grade, tankcars, same basis.ton.124.50 - —
37 grade, tankcars, same basis. ton.153.00 - —
Urethane, USP, dms lb 1.45 - —
Uva-ursi leaves, bls lb 12 - .14

V

Valerian root, Belgian, bgs lb .35 - —
Indian, bgs. lb 27 - —
dl-Valine, dms., works lb.21.00 -27.50
Valonia beards, 40-42% tannin, bgs., ex dock ton.86.00 - —
cups, 28-30% tannin bgs., ex-dock ton.64.00 - —
extract, powd., 63% tannin, bgs., exdock, duty extra lb. .09¾- —
Vanadium pentoxide tech., dms., works lb 1 28 1 33
Vanilla beans, Bourbon, tins lb. 7.00 - —
Mexican, cuts, tins lb. 7.00 - —
whole, tins lb. 7.50 - —
Tahiti, cs lb. 7.00 - —
Vanillin ex eugenol, tins, 25-lb lots lb 6.50 6.75
smaller lots lb 6.90 7.25
ex lignin, dms., 100-lb. lots lb 2.75 —
smaller lots lb 2.80 2.85
Vinyl acetate monomer, 55-gal dms., c.l., works lb. .19 - —
l.c.l., works lb. .20 - —
tankcars, works lb. .16½- —
tanktrucks, less than 4,000 gal., works lb. .17½- —
n-Butyl ether, tech. dms., c.l., works lb. .28 - —
l.c.l., works lb. .30 - —
tanks, works lb. .27 - —
Chloride monomer tanks, works lb .11 - .12
Ether, USP, anesthesia, bots., 50 c.c., hospitals bot. 1.12 - —
75 c.c. bot 1.56 - —
tech., dms., c.l., works lb. .26 - —
l.c.l. works lb. .28 - —
tanks, works lb. .25 - —
Isobutyl ether, tech., dms., c.l., works lb. .28 - —
l.c.l. works lb. .30 - —
tanks, works lb. .27 - —
Methyl ether, cyls., works lb. .23 - —
tanks works lb 20 - —
Cylinders are sold outright, or if shipped against deposit, a free period of 60 days is allowed; and if empties are returned prepaid and in good condition within that period full refund is made.
Propionate monomer, dms., c.l., dlvd lb .49 - —
l.c.l. same basis lb 50 - —
tanks, same basis lb .47 - —
Trichloride (see Trichloroethane).
2-Vinylpyridine 10 dms to tanks, works lb 1.36 - —
1 to 9 dms., works lb 1.50 - —
tanks, works lb 1.33 - —
Vinyltoluene, dms., c.l., frt. alld lb .18½- —
l.c.l., frt. alld. lb .19½- —
tanks, frt. alld lb .16 - —

Viosterol in nat. vegetable oil, 400,000 to 1,000,000 D units per gram, bots., lots of 10 billion USP units..1,000,000 units. .02½- .04¾
Vitamin A acetate, syn., crystalline, beads 500,000 A units per gram gram. .07¼- —
dry, 500,000 units per gram, kilo lots kilo.67.50 - —
325,000 units per gram, same basis kilo.43.88 - —
250,000 units per gram, same basis kilo.33.75 - —
Dry vitamin A acetate in less than kilo lots, $2.50 per kilo higher in all potencies.
liq. in oil, 1,000,000 A units per gram 1,000,000 units. .10 - —
Palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units. .10 - —
in oil, 1,000,000 A units per gram 1,000,000 units. .10 - —
B_1 (see Thiamine hydrochloride).
B_2 (see Riboflavin)
B complex natural (see Rice bran concentrate and Yeast)
B_{12} crystalline, 1-gram or 5-gram vials gram.245.00 - —
oral grade solids, in containers of 1 and 5 grams of B_{12} activity gram.185.00 - —
C (see Acid, ascorbic)
D (see Oils, codliver and fish-liver Calciferol, and Viosterol)
D_2, dry 850.000 units per gram, kilo lots kilo.42.50 - —
less than kilo lots kilo.45.00 - —
E (see a-Tocopherol and Oil, wheat germ).
G (see Riboflavin)
H (see Biotin)
K Active (see Menadione).
K_1 25 gram bots gram. 4.50 - —
Violet methyl toner (see Blue methylviolet toner)
V.M.&P. naphtha (see Petroleum naphtha).

W

Wahoo root, bark, bls. lb. 2.25 - —
dlvd lb. 1.95 - —
25-49-lb. lots, N. Y. or Chicago, lb. 2.05 - —
5-24-lb. lots, cns., N. Y. or Chicago lb. 2.15 - —
Wattle bark, fair average, African, bls., ex dock ton.95.00 -96.00
merchantable, bls., ex dock ton.91.00 -92.00
Extract, liq., 35% tannin, bbls., lb. .08¼- .08⅝
solid, E. Africa, 60% tannin, bgs., ex dock, duty extra lb. .09¾- —
S. Africa, 60% tannin, bgs., ex dock, duty extra lb. .10 - —
Warfarin 0.5% dms., 50-lb. lots,
Wax, amorph. (see Wax microcrystalline)
Bayberry bgs lb. .45 - .47
Bees, crude, African, bgs lb. .71 Nom.
Brazilian, bgs lb. .73 Nom.
Central American, bgs lb. .68 Nom.
Chilean, bgs lb. .73 Nom.
refd., USP, bleached, white bricks, 100-lb. ctns lb. .80 - .82
slabs, 100-lb. ctns lb. .79 - .81
yellow, bricks, 100-lbs. ctns.lb.. .71 - .73
slabs,, 100-lb. ctns lb. .70 - .72
Candelilla, crude, bgs lb. .70 - .71
refd., bgs lb. .73 - .74
Powdered candelilla: 20 to 100 mesh, 7c. higher.
Carnauba, chalky, bgs., ton lots, lots lb. .65 - .66
North country No. 2, crude, bgs., ton lots lb. .74 Nom.
No. 3, Ceara, crude, bgs., ton lots lb. .66 - .68
refd., pure, bgs., ton lots lb. .74 - .75
tech., bgs., ton lots lb. .66 - .67
Parnahyba, crude, bgs., ton lots lb. .68 - .69
refd., pure, bgs., ton lots lb. .76 - .78
Yellow No. 1, Ceara, bgs., ton lots lb. 1.43 - 1.45
Parnahyba, bgs., ton lots lb. 1.46 - 1.48
Powdered carnauba wax price same as powdered candelilla.
Japan, cs lb. .47 - .49
Microcrystalline, coating grades, tankcars, works lb. .10 - .11
laminating grades, tankcars, works lb. .11 - .12
Montan, dom., refd., bgs lb. .29 - .30
imp., crude, Bohemian, bgs lb. .26 - .28
German, bgs lb. .35 Nom.
Ouricury, refd., pure, bgs lb. .89 - .90
tech., bgs lb. .85 Nom.
Paraffin (see P)
Spermaceti, blocks, cs lb. .30 - .33
cakes cs lb. .31 - .34
Sugar cane, dom., refd., slabs, 80 lbs. ctns., works lb. .65 - .75
spot lb. .67¼- .72½
White lead (see Lead, White).
White pine bark, rossed, bls lb. .18 - .19
White precipitate, USP powd. dms., lb. 6.55 - —
Whiting (see Calcium carbonate).
Wild cherry bark, thin, nat., bls lb. .20 - —
rossed, bls lb. .21 - —
Witch hazel, bark, bls lb. .16 - .17
leaves, bls lb. .27 - —
Wollastonite, fine, bgs., c.l., works. ton.39.50 - —
l.c.l. ex whse ton.56.00 - —
medium, bgs., c.l., works ton.27.00 - —
l.c.l. ex whse ton.44.00 - —
Woolfat, crude (see Degras).
USP (see Lanolin).
Wormseed, American, bgs. lb. .20 - .25
Levant, bgs. lb. 4.25 - 4.50
45°-47°C., dms., c.l. same basis,

X

Xylene (see Xylol).
Xylenol, cryst., 38°-60°C., m.p., dms., l.c.l., works lb. .40 - —
56°-58°C., dms., l.c.l., works, frt. equald lb. .30 - —
45-47°C., same basis lb. .212 - —
l.c.l., same basis lb. .215 - —
tanks, same basis lb. .199 - —
fraction, b.r., 7°-9°C., dry above 227°C., dms., c.l., same basis gal. .96 - —
l.c.l., same basis gal. .99 - —
tanks, same basis gal. .85 - —
dry at or below 227°C., dms., c.l., same basis gal. 1.11 - —
l.c.l. same basis gal. 1.14 - —
tanks, same basis gal. 1.00 - —
Xylidines, mixed, o-m-p, dms., c.l. or t.l., works lb. .39 - —
l.c.l. same basis lb. .40 - —
tanks, same basis lb. .38 - —
Xylol, coaltar, indust., tanks, works:—
Bethlehem, Pa gal. .34 - —
Birmingham dist gal. .32 - —
Chicago dist gal. .35 - —
Cleveland dist gal. .34½- —
Geneva, Utah gal. .29 - —
Johnstown, Pa. gal. .33 - —
Lackawanna N. Y. gal. .35 - —
Lone Star, Tex gal. .33 - —
Lorain, Ohio gal. .33 - —
Middletown, Ohio gal. .34 - —
Minnequa, Colo gal. .34 - —
Philadelphia dist gal. .34 - —
Pittsburgh dist gal. .32 - —
Sparrows Point, Md gal. .34 - —
Terre Haute, Ind gal. .35 - —
Youngstown, Ohio gal. .32½- —
petroleum, indust., tanks, works:—
Bayonne, N. J gal. .34 - —
Baytown, Tex. gal. .33 - —
Chicago, Ill gal. .35 - —
Houston, Tex gal. .33 - —
Philadelphia, Pa. gal. .34 - —
Providence, R. I. gal. .35 - —
Wood River, Ill. gal. .35 - —

Y

Yara, yara, cns. lb. 2.15 - 2.65
Yeast, brewer's, dry, USP, 50 int'l B units per gram, 100-lb. dms lb. .47 - —
90 int'l B units per gram, 100-lb. dms lb. .52 - —
200 int'l B units per gram, 100-lb. dms lb. .56 - —
300 int'l B units per gram, 100-lb dms lb. .60 - —
debittered, USP Saccharomyces, dlvd lb. .27 - —
Torula, USP dlvd lb. .18 - —
Yellow, barium chromate, CP, bbls., dlvd. N. of Tenn. and N. C., E. of Miss., including Davenport, Minneapolis, Rock Island, St. Louis, St. Paul lb. .35 - —
Yellow barium chromate price differentials in other States and city zones are those for chrome yellow below
Benzidine, AAA, bbls., dlvd lb. 2.10 - —
AAOT bbls., dlvd lb 2.85 - —
Lightfast bbls. dlvd lb 3.15 - —
Cadmium, CP, all shades, bbls., frt. alld E. of Rockies lb. 2.85 - —
Selenide lithopone, all shades, bbls., frt alld. E. of Rockies lb. 1.05 - —
Cadmium yellows, Los Angeles and San Francisco, ex whse. 1c per lb. higher.
Chrome, CP, bbls., dlvd. N. of Tenn., and N. C., E. of Miss., including Davenport, Minneapolis, Rock Island lb. .33½- .35
Dlvd. Ala., Fla. Ga La (Shreveport 1½c higher); Miss., N C., S C., Penna., Dallas, Tex. 1¼c. higher; Ft Worth, Tex 1½c. higher; El Paso Tex. 2c higher; Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha St Joseph 1.6c. higher; dlvd Pac. Coast, for Denver, Pueblo, Salt Lake City, Wichita prices are equalized with Chicago.
Hansa, 10 g. bbls., same basis as yellow, chrome lb. 2.25 - —
G pigment bbls lb. 1.91 - —
Iron oxide, natural, French type, bgs., c.l., works lb. .06 - —
Peruvian type bgs., l.c.l lb. .0205- .0345
pure, bgs., c.l., works lb. .11½- —
l.c.l., works lb. .11¾- —
Mercury, oxide, bbls., 1,000-lb. lots. lb. 5.58 - —
smaller lots lb 5.60 - —
Ocher (see Yellow, iron oxide, natural).
Zinc (chromate), bbls. dlvd lb. .27 - .27½
basic, bbls., dlvd lb. .31 - .32½
Yerba santa leaves, bls lb. .40 - .42
Yohimbine hydrochloride, bots, tins. oz. 3.75 - 4.25

Z

Zein, bgs., 36,000-lb. lots or more lb. .38 - —
1,000 to 36,000-lb. lots, works lb. .40 - —
smaller lots, works lb. .43 - —
Zinc acetate, NF VIII dms lb. .53 - —
tech., dms., works lb. .29½- .29¾
Borate, bgs., c.l., dlvd E lb. .192 - —
l.c.l. dlvd E lb .202 - —
Chloride, NF, gran., dms lb. .42 - —
precip., powd., dms. lb. .26 - —
soln. 50% dms c.l. works. 100 lbs. 5.80 - —
l.c.l., works 100 lbs. 6.40 - —
tanks, works 100 lbs. 5.15 - —
tech., fused, dms., c.l., works 100 lbs.10.70 - —
l.c.l., works 100 lbs.11.20 - —
gran. fib. dms., c.l., works 100 lbs.11.45 - —
l.c.l., works 100 lbs.11.95 - —
Chromate (see Yellow, zinc).
Cyanide, kgs. 1,000-lb. lots or more, works lb. .523 - —
smaller lots, works lb. .543 - —
Dust, pigment, bbls., c.l., works lb. .17½- —
l.c.l., works lb. .18½- —
Fluoride bbls., works lb. .49 - .50
Hydrosulfite, dms., c.l., frt. alld lb. .21½- —
l.c.l., frt. all. lb .22 - .37½
Metal, prime western slabs, E. St. Louis lb. .13½- —
New York lb. .14 - —
Naphthenate, liq., 8% Zn., dms., frt. Alld. lb. .24½- —
10% Zn. dms. frt alld lb. .30 - —
Nitrate, tech., cryst., bbls. works. lb. .20 - —
Oxide pigment, American process, lead-free, bgs., c.l., frt. alld lb. .14½- —
l.c.l. same basis lb. .15½- —
leaded, 35%, bgs., c.l., mills, frt. alld lb. .15½- —
l.c.l., same basis lb. .16½- —
30%, bgs., c.l., same basis lb. .15¾- —
l.c.l., same basis lb. .16¾- —
French process, coml., green seal, bgs., c.l., frt. alld lb. .15¾- —
l.c.l., same basis lb. .16¾- —
red seal, bgs. c.l., same basis lb. .15¼- —
l.c.l. same basis lb. .16¼- —
white seal, bgs., c.l., same basis lb. .16¼- —
l.c.l., same basis lb. .17¼- —
USP, ctns., c.l., frt. alld lb. .17¼- —
l.c.l., same basis lb .18¼- —
Zinc oxide Pac. coast prices 1c. higher.
Phenolsulfonate, NF, gran., dms. lb. .39 - —
powd., dms lb. .42 - .49
Resinate, precip. 7.2-7.6% Zn., dms. frt alld lb. .29 - —
Silicofluoride, dms., works lb. .12½- .14
Stearate, tech. USP ctns. c.l lb. .39 - —
lb. .39 - —
l.c.l. lb. .40 - .44
Sulfate, powd., monohydrate, 36% Zn, bgs. c.l. dlvd E 100 lbs. 8.75 - —
l.c.l., dlvd E 100 lbs. 9.75 - —
Zinc sulfate in bbls. 40c higher.
USP gran dms lb .26 - —
Sulfide, pure bgs., c.l., dlvd lb. .2530- —
Undecylenate, dms. lb. 2.25 2.50
Yellow (see Yellow, zinc).

Zinc-ammonium chloride, bgs., c.l., works	100 lbs.	10.25	—
bbls., c.l., works	100 lbs.	10.85	—
l.c.l., works	100 lbs.	11.35	—
Zinc-formaldehyde sulfoxylate, basic, dms., c.l	lb.	.25½	—
l.c.l.	lb.	.26	—
Zircon (G), gran., bgs., c.l., works.	lb.	.03⅛	—
5 tons to c.l., works	lb.	.03⅜	—
1 ton to 9,999-lb lots, works.	lb.	.04	—
smaller lots works	lb.	.06½	—
milled, bgs., c.l., works	lb.	.04⅛	—
5 tons to c.l., works	lb.	.04⅜	—
1 ton to 9,999-lb lots works	lb.	.04⅝	—
500-1,999-lb. lots, works	lb.	.07½	—
Zircon (G) in barrels 1c higher			
Zirconium acetate, 13% com. ZrO., c.l. 30,000 lbs minimum, works	lb.	.23	—
Hydride, cns., works	lb.	7.00	8.45
Nitrate, dms., ex whse	lb.	4.50	7.00
Oxide 92½-99% white grd., bbls. or bgs. works	lb.	1.50	—
lump, electric-fused, bgs., lump, electric-fused, bgs., c.l., works	lb.	.44	—
5-ton lots works	lb.	.44½	—
1 ton to 9,999-lb lots, lbs works	lb.	.45	—
CP white grd. bbls. or bgs., works	lb.	1.50	—
lump electric fused bags, 500 to 1,999-lb. lots, works	lb.	.45½	—
smaller lots works.	lb.	.48	—
milled, electric-fused, bgs., c.l., works	lb.	.59	—
5-ton lots, works	lb.	.59½	—
1 ton to 9,999-lb lots, works	lb.	.60	—
500 to 1,999-lb lots, works	lb.	.60½	—
smaller lots works.	lb.	.63	—
Oxychloride, cryst., cns., 5-ton lots works	lb	.35½	—

Bids Wanted

Calcium chloride, 55,512 lbs., anhyd., inv. 927, Jan. 9, Navy Purchasing Office, Navy Dept., Tempo "D" Bldg., 4th & Independence Ave., S.W., Washington 25, D.C.

Dextrose, 672 ¼-lb. bots. anhydrous, inv. A-237, Jan. 7, Vets. Adm., Procurement Div., Vets. Adm. Bldg., Washington 25, D.C.

Furfuryl alcohol, 19,500 lbs., inv. 144, Jan. 7, Purchasing & Contracting Office, White Sands Proving Ground, N. Mex.

Gallic acid, 75 lbs., inv. 23391, Dec. 28, Govern. Printing Office, Purchasing Dept., Washington, D.C.

Hydrofluoric acid, 1,815 lbs., 60% aqueous, inv. 144, Jan. 7, Purchasing & Contracting Office, White Sands Proving Ground, N. Mex.

Menthol, 384 1-oz. bots., 696 ¼-lb. bots., inv. A-237, Jan. 7, Vets. Adm., Procurement Div., Vets. Adm. Bldg., Washington 25, D.C.

Mercury, 258 5-lb. bots., inv. A-237, Jan. 7, Vets. Adm., Procurement Div., Vets. Adm. Bldg., Washington 25, D.C.

Methanol, 3,168 1-lb. bots., inv. A-237, Jan. 7, Vets. Adm., Procurement Div., Vets. Adm. Bldg., Washington 25, D.C.

Nitric acid, 180,000 lbs., red fuming, inv. 144, Jan. 7, Purchasing & Contracting Office, White Sands Proving Ground, N. Mex.

Paint, 100 lbs. overprint varnish, inv. 23455, Jan. 2, Purchasing Agent, Govern. Printing Office, Washington, D.C.; 494 gals. shellac varnish, inv. RIT-92705, Dec. 27, Gen. Services Adm., Fed. Supply Service, 7th & D Sts., S.W., Washington 25, D. C.; paint products including filler, lacquer, linseed oil, pigments, enamel, primer, etc., during a 12-month period, inv. SE4S-857, Dec. 28, Gen. Services Adm., Fed. Supply Service, 909 First Ave., Seattle 4, Wash.; semigloss enamel, inv. (4)-841, Jan. 2, 43,650 gals. interior, deck enamel, inv. 856, small business only, Jan. 10, 10,284 gals. phenolic oil varnish, 14,044 gals. asphalt varnish, inv. 860, Jan. 10, 58,000 lbs. basic carbonate, white lead pigment paste, inv. 857, Jan. 10, 4,880 gals. exterior metal and wood primer coating, inv. 859, Jan. 10, enamel, inv. (4)-834, Jan. 3, rust inhibiting enamel, inv. (4)-821, Jan. 2, enamel and paint, inv. (4)-833, Jan. 3, lusterless lacquer, inv. (4)-820, Jan. 2, paint and enamel, inv. (4)-828, Jan. 2, paint and varnish, inv. (4)-811, Jan. 2, Gen. Stores Supply Office, Navy Dept., 700 Robbins Ave., Phila. 11, Pa.

Pyridoxine hydrochloride, 984 bots. of 100 tablets, inv. A-257, Jan. 7, Vets. Adm., Procurement Div., Vets. Adm. Building, Washington 25, D.C.

Tricresyl phosphate, 6 535-lb. dms., inv. 112, Dec. 27, Purchasing & Contracting Office, Biological Warfare Labs., Fort Detrick, Frederick, Md.

Borden Progresses

—Continued from page 5

the company expects to triple the capacity of the Leominster plant before the end of 1957

The plant consists of two buildings located on a six-acre tract of land adjoining Borden's monomer department plant which produces polyvinyl alcohol and polyvinyl acetate. The general manager of Borden's polyvinyl chloride department is Dr. Harry Wechsler.

The plant will produce a wide variety of specialty resins and vinyl chloride latices as well as general-purpose polyvinyl chloride for the calendering and extrusion field. Polyvinyl chloride resins are used in such applications as calendered sheeting, coated fabrics, electrical wire covering, plastic floorings, surface coatings, phonograph record molding, paper coating, non-woven fabrics and leather finishes.

Borden's also announced acquisition of plant and office facilities at Leominster for production of its line of "Resinite" products similar to that made by its Santa Barbara, Calif., operation. The new "Resinite" plant will begin production of vinyl compounds for electrical wire and cable insulation and jacketing by mid-January. These compounds will be made to top industrial and military specifications.

The "Resinite" plant will begin production of industrial tubing for the aircraft, electronics and electrical appliance field by March 1. At the same time, it will begin extrusion of high-grade medical tubing for intravenous feeding, blood donor sets, catheters and similar pharmaceutical items. It will also stock "Resinite" plastic garden hose and flexible plastic sprinklers. Eastern sales manager for the "Resinite" products is Alan Stevens, formerly with Borden's Santa Barbara operation.

The new laboratory-office building which Borden's plans to build and complete next Spring will be a one-story steel and concrete building. It will be a "three-in-one" laboratory, according to Augustine R. Marusi, president of the chemical division. It will be a straight development laboratory, a technical services laboratory and a semi-pilot plant, he said.

To employ about twenty-five persons, the laboratory will have as its main objective the development and improvement of polymers and copolymers of vinyl chloride. The laboratory-office building will be adjacent to the new polyvinyl chloride resin plant. The lab will be under the direction of Dr. Wechsler.

Enemy Property Claims Rules Set by US Gov't

The Department of Justice has fixed March 11 as the deadline date for filing debt claims against all Bulgarian, Hungarian, and Rumanian corporations and business enterprises whose properties were first vested as enemy property in the United States between March 8, 1956, and August 31, 1956, inclusive, under the international claims settlement act of 1949.

Creditors of the seized enterprises may file their claims with the Attorney General. The statute limits such claims to those based upon obligations expressed or payable in United States currency which were due and owing on October 9, 1940, for Rumanian claims; on March 1, 1941, for Bulgarian claims, and on March 13, 1941, for Hungarian claims.

The claims must be received by the Office of Alien Property in Washington, or by one of its branch offices, on or before the bar date of March 11, 1957, and merely placing the claims in the mails on or before that date will not constitute compliance with the bar order. Later bar orders will be issued covering Bulgarian, Hungarian and Rumanian debtors whose property was first vested subsequent to August 31, 1956.

Merck Appoints Radigan Personnel Relations Head

Merck & Co., Rahway, N. J., has appointed John J. Radigan to the new corporate staff position of director of personnel relations. Mr. Radigan was formerly vice-president of industrial relations of P. R. Mallory & Co., Indianapolis, Ind.

In his new post, Mr. Radigan will be responsible for coordinating personnel objectives, policies and plans for Merck. He also will serve as chief personnel adviser to the president and executive vice-president.

FWDA Elects Treasurer

Rudolph P. Neptun, vice-president in charge of field sales at New York Quinine & Chemical Works, New York, has been re-appointed treasurer of the manufacturers' section of the Federal Wholesale Druggists Association.

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Opportunity for Educational Service

There is a myriad of possibilities for useful and effective contributions by business to the educational needs of this country to be found in the significance of the recently announced educational program of live shows by a national television network. The actual program, to be started in March, does not measure up close to those needs in any respect—it is largely experimental. But, the basic idea can be extended and applied quite adequately in at least the more necessary areas.

The open-minded observer is forced by published references to the matter to conclude that television shows are in large measure exerting a detrimental influence upon the behavior of juveniles. The score or so of FCC-licensed educational stations throughout the country, although well supported and well directed, apparently do not reach either in number or in nature those who are especially susceptible to what they see or hear over the air. Those stations are local and are generally referred to as "noncommercial." It can be seen that the term, "commercial," as popularly applied with reference to radio or television presentations, has little, if any, place in the description of an educational program. But, such programs can be supported by business without the customary commercialization to the distinct advantage of the community as a whole, with particular benefits for its businesses.

The proposed nationwide educational program calls for presentation of its live shows at some period in the afternoon, with three showings each week. Whether they will be set for a time after school hours has not yet been stated. But, it has been made known that they will be kinescoped for subsequent use in classrooms. It is in that connection that business has its real opportunity to make desirable, beneficial use of the material locally—after it has made arrangements, satisfactory primarily to itself, that the presentations will be properly handled and not looked upon by the teachers of the community as some sort of objectionable competition—many of today's teachers being what they are.

As now planned, the program will comprise instruction in mathematics, the humanities and government. How the courses will fit in with local curriculums remains to be seen—and duly considered under any utilization by business. In any event, there will be a big opportunity for business to assist in the preparation and presentation of instructions in other lines for which it knows there is a need.

There is a particularly pertinent message for business leaders who are aware of national and local educational needs because of the impact of the consequent inadequacies in areas of their own needs, in what was said by the president of the promoting network in his announcement of the project:

> We believe that when our project terminates at the end of 1957, its values and lessons can be carried forward in ways that will help enrich the whole future of education by television. Every citizen has a stake in the success of educational TV. The drastic national shortage of teachers and classrooms lends a special urgency to the efforts of TV to build itself into a major educational force.

Federal Tax Cut Unlikely

Insofar as can be judged in advance from anything that is identifiable as informatively contributory, the next budget of the federal government will be a balanced one—and a big one. Looking at the probabilities without the aid—or handicap—of either dark or rose-tinted glasses, one must conclude that, while there doubtless will be a deal of talking in congress about whether it is necessary to keep on pushing the total of tax receipts to successive new annual highs, there will be very little, if any, easing of the individual burdens imposed by way of income or excise levies. There may be some reforming of the systems; but it was made quite clear in the recent congressional hearings on tax matters that even the most promising expectations of excise easings would be but little realized.

The President and the Director of the Budget, with their advisers and other helpers, are busy with preparation of the spending program to be presented to congress next month. There is very little reason to expect the recommendation therein of any substantial reduction in that direction. It has been announced that payments are to be increased under the soil bank program. In spite of any optimistic viewing of the actual import of the conflicting and confusing reports on the extent to which the Hoover recommendations for reducing government expenses are being applied, congressional investigators have recently reported that the employment of civilian workers has again begun to increase and that the movement—or push—to reduce the overall payroll had been halted. Both situations are attributed to an alleged necessity that various services be increased to meet conditions deriving from the increase in the country's population.

Much talk has been poured out in recent weeks in criticism of the loopholes in the income tax sections of the revenue law which are declared to cost the government almost ten billion dollars a year by way of evasions or more or less legislatively intended exemptions. Those aspects of the generally admitted imperfections of the tax sytsem have been put under study by a congressional unit. They are being vigorously condemned by spokesmen for the nation's parent labor organization. But, the odds are that they will get little, if anything, other than talk in the coming session of congress. The same must be concluded with reference to any tax reductions, even in the areas of the "emergency" excises on such necessities as transportation and communications. The congressional attitude appears to be that, in the first place, the surplus of federal funds is far too small to justify any whittling down of the coming year's contributions. Secondly—really more expediently—it is declared that there can be no easing up in the subsidizing of incompetence in agriculture or manufacturing, and there must be still more spending for defense—of the interests which are planning or producing newer and newer—somewhat reputedly better—military equipment which nobody yet knows how to utilize effectively.

That ancient and oft repeated pronouncement about the need for a scientifically constructed tax system can still be heard here and there. But, insofar as anything is being done about it, the only "science" that is being applied is political.

New Year Resolving

Whatever may be his attitude toward the ancient practice of laying out a revised—or reformed—personal policy at the beginning of each—and every—new year, the wise business executive will recognize today's particular need for such policy-making in a business sense. He will be much puzzled, however, in endeavoring to follow the guideposts set up by those who know all about what business is going to be during more or less of the coming year, but also know enough not to say anything about what is to be done to effect its being so.

The biggest posted signs point to new high peaks in 1957. They do not point out whether those peaks are going to be reached in plants, variety or volume of production, prices, profits, popularity, or what. They give no suggestions on whether the peak-pointers are merely being cautious in not saying that a peak is a very narrow area with a downward incline which is at least as sharp as the upward one to which they are pointing. They say nothing about higher tenable levels—plateaus, perhaps—being reached. They, of course, do not state the system of measurement they apply to the peaks. There is more than a trace of intimation in the wording of the signs that the unit of height is to be price. There is also—and it is more apparent among practical producers than among professional pointers—a feeling that profits are not going to be as big—whatever may be their height—as they recently have been. That sets the pointers to putting up signs on what that will mean in terms of popularity among speculators in industrial stocks, who contribute nothing to the profits of production, distribution, and that really contributory popularity—with the consuming public.

It is not easy to make satisfactory resolutions in business policy or practice under today's hreats of external influences, especially those which are external in a national, continental, or even hemispheric sense, as well as those of the ordinary economic type. Well justified expectations with reference to such resolving have been shattered on several occasions during the past four decades by external (foreign) forces which business could not be expected to foresee, forestall, or avoid—whatever truth there may be in the charges of governmental shortcomings in those respects.

The worst effect of those external influences was diminution of self-reliance on the part of business in this country, a progressive consequence of failure for various reasons by business to resolve, as it should now resolve, to reduce to, and to keep at, the lowest practical minimum its dependence upon government as a provider, a protector, or a purchaser.

Washington Talks It Over

National Institutes of Health Has Too Much Money for Study of Cancer and Doesn't Know How to Spend It.

By Ralph L. Cherry
Chief, OPD Washington Bureau

Officials of the National Institutes of Health now know what it's like to be on the horns of a dilemma. They have a problem that seems far from easy solution, stemming from the generosity of congress last session in appropriating money for cancer research and the later investigation by the Fountain subcommittee into the Salk polio vaccine program.

In an effort to show the country that it was doing more than just talking about the cancer problem, congress appropriated $19,980,000 last session to be spent by NIH in research to find the best drug available to cure this disease. This was an amount far in excess of that requested by NIH and came about somewhat in this fashion:

When the President submitted his budget last January it carried a figure of $7 million for the cancer research program—it being the amount that NIH said it could prudently spend this year. NIH and the President, however, didn't reckon with the strength of the opponents of cancer in congress. The house said $7 million is not enough, and upped the figure to $10 million. The senate said, in effect, "we're twice as opposed to cancer as the house" and doubled the fund to $20 million. The conference committee cut it by one-tenth of 1 percent.

NIH now has all this money and doesn't know quite what to do with it. The half dozen or so commercial research firms able to do this kind of work have taken on all they can handle and officials now are wondering if maybe some of the big drug manufacturers with large research facilities might not help out by contracting for some of the research. The program is largely one of screening thousands of drugs to find the most potent cancer killer, which means that some drug houses will be doing work on the products of a competitor—and they are not sure that they want to get into this activity.

Meanwhile, a house subcommittee, headed by Rep. L. H. Fountain of North Carolina began looking into the manner in which Public Health Service—NIH's parent body—handled the contracting for Salk polio vaccine last year and this year. The resulting report was quite uncomplimentary and in effect accused the agency of failing to give due consideration to public interest in the price the government was paying for the vaccine. The committee also hinted at price collusion and questioned whether it would not be a good area for investigation by the Justice department.

The sum and substance of the situation thus facing NIH officials is this: They have a lot of money on hand to spend in research on cancer which congress expects them to spend or it will want to know why. Ordinarily this would permit of some degree of laxity, so long as results are produced. On the other hand, the agency already is in hot water with a committee for trying to get results without too much concern given to methods, and any repetition of this practice would probably produce another congressional investigation.

It just seems like NIH is to be damned if it does and damned if it doesn't.

Japan Eyes Textile Markets

Already a feared competitor in cotton textile lines, Japan is now setting its sights on the synthetic textile markets. The Japanese government has announced textile production goals for the next eight years, calling for a much larger increase in production of rayon and other synthetic fibers than in cotton yarns.

Japanese production of rayon, spun rayon, vinylon, and nylon for this year is expected to be about 936 million pounds—only 23 million pounds less than cotton yarn production. The 1963 planned production goal for rayon and the other synthetic fibers, however, is for 1,389 million pounds—400 million pounds or 40 percent above the 1963 production goal of 989 million pounds set for cotton yarns.

Polio Vaccine Plentiful

It is estimated that about 17 million doses of Salk polio vaccine are backed up in the hands of manufacturers, and additional millions are lying unused in drug stores and physicians' offices. Both President Eisenhower and HEW Secretary Folsom are urging that the vaccine be used promptly—before the next poliomyelitis season arrives.

Millions of children have received only one or two injections and should, before next summer, be given the additional protection provided by the recommended three doses. Since adults up to thirty-five or forty years of age are susceptible to the disease, they too are being urged to get the three doses.

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—by the Tons

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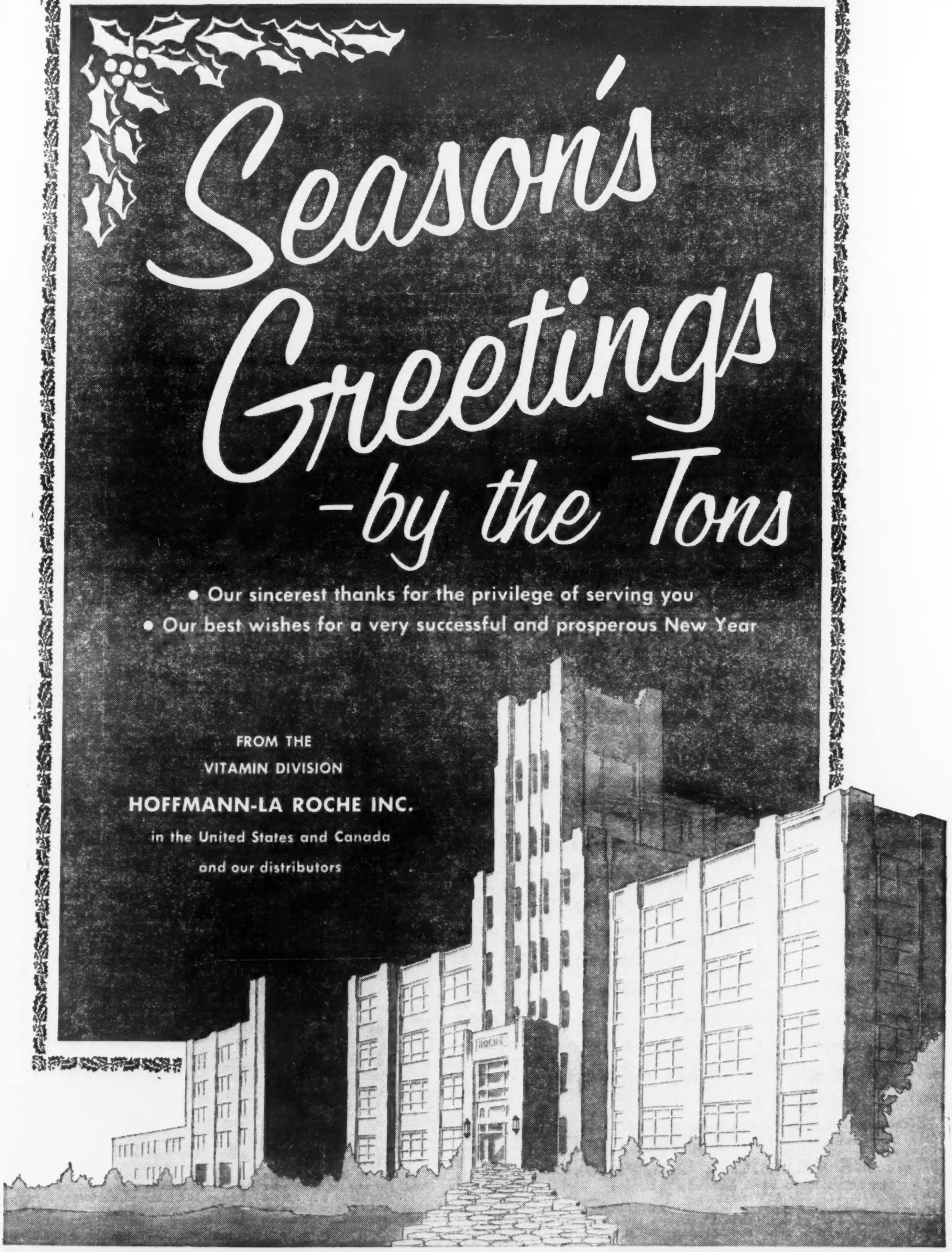

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Heavy Chemicals

Nickel acetate, carbonate, chloride and sulfate were added to the mounting list of chemicals to be advanced January 1. Boric acid less than ton lot prices will be advanced at a higher rate than carlots on the first of the year, in order to cover increased costs of freight, labor and packaging. As to freight rates, the granting of rate increases by the government was not expected to have too much of an effect on heavy chemicals prices, since most are on an f.o.b. works basis.

It was indicated that changes already made for January 1 in a number of chemicals had taken into consideration possible freight rate increases, particularly in terms of less carlot quantities.

Of grave concern to importers of chemical raw materials from abroad was the 75 percent surcharge on ocean freight announced by shippers last week.

The shipping shortage, while it meant discomfort to importers, worked in other ways as well. Caustic soda exporters reported an increased demand for their product, particularly from Latin America, owing to the tight shipping position in Europe.

Steel production the week of December 10 broke all previous records. As a result of this, mineral acids continued to fare exceedingly well in the market.

Demand for caustic soda, chlorine and soda ash was tempered by pre-holiday lack of interest, combined with wishes of consumers to keep year-end inventories as low as possible.

The American Pulp and Paper Association reported production for the week ended December 15 at 99.5 percent of theoretical capacity, as compared with the revised figure of 99.1 percent for the previous week, and 102.1 percent for the corresponding week of last year.

January 1 Price Advances

Acid, boric, cryst., gran., powd., $2.25 per cwt.
Borax, anhyd., cryst., $2.50 per cwt.
gran., decahydrate, $1.25 per cwt.
Pentahydrate, $2 per cwt.
powd., $1.75 per cwt.
Calcium phosphate, monobasic, 30c. per cwt.
Nickel acetate, 2½c. per lb.
Carbonate, 7c. per lb.
Chloride, 2c. per lb.
Sulfate, 2¼c per lb.
tribasic, 50c. per cwt.
Phosphorus pentoxide, 45c. to $1 per cwt.
Potassium pentaborate, $2.50 per cwt.
Nitrate, NF, gran., 25c. per cwt.
powd., 25c. per cwt.
Sodium cyanide, flake, 1½c. per lb.
Metaborate, $2 per ton.
Phosphate, dibasic, duohyrate, 25c. per cwt.
Silicate, 40° Be, 10c. per cwt.
47° Be, 15c. per cwt.
52° Be, 20c. per cwt.
solid, $5 per ton.
Sulfite, anhyd., 25c. per cwt.

Price Trends

Advanced

None.

Reduced

Potassium stannate, 1.2c. per lb.
Sodium stannate, 1.4c. per lb.
Stannic chloride, 1.5c. per lb.
Stannous chloride, anhyd., 1.9c. per lb.
hydrous, cryst., 1c. per lb.
Sulfate, 1.7c. per lb.
Tin, 2⅜c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Dec. 23, 1955
103.35	103.35	102.34	101.26

For Current Prices see Page 9

Acid, Boric—All grades but anhydrous will be raised $2.25 per ton in carlots, effective January 1. At the same time, smaller quantities will be increased $4.25 per ton, the added rise having been made in order to cover higher shipping, handling and packaging costs.

Acid, Hydrochloric—The announcement made previously by a producer of price increases for hydrochloric acid at three southwest shipping points had no effect on prices of other producers last week.

Other manufacturers of muriatic in the area reported that a change in the immediate future was unlikely as far as they were concerned, since the December 15 deadline for first quarter contracts has passed.

However, there was some feeling that the announced increase would have a beneficial effect on the market in an area that has long been notorious for lengthy supplies and weak prices.

The position of muriatic in the south and southwest has shown some improvement over the past year, it was pointed out. The better position has been ascribed large part to withdrawal of acid from the market by a company which has turned its available supply to captive use.

The metropolitan New York area was still in a state of instability owing to keen competition. Some sales were reportedly being made below list prices.

Acid, Nitric—Stainless steel production continued heavy, and was responsible for large volume withdrawals of acid against contract. Other phases of steel manufacture were also in the market for sizable quantities.

Acid, Sulfuric—Steel production the week of December 10 set another all-time weekly output record, according to the American Iron and Steel Institute.

Production for that week was 2,522,000 tons, or 102.4 percent of capacity. Output last week was estimated at 2,511,000 tons, or 102 percent of capacity. Output a year ago last week was 2,338,000 tons, or 96.9 percent of 1955 capacity.

Chlorine—Deliveries were said to be slackening to some extent, in accord with the policy of many consumers to cut inventories at the end of the year.

However, the decline in sales has not been nearly as sharp as had been expected. Producers indicated that chlorine was still moving out in quantities well above the seasonal norm.

Furthermore, business was expected to snap back with a rush in the early part of January, following the holidays. Most sources predicted a strong first quarter, with demand holding well into the first half.

Cobalt Chemicals—Despite the recent decrease in cobalt metal and oxide, producers of a variety of cobalt chemicals felt that those items would not reflect the decrease in the raw material.

It was pointed out that the decline in metal had been offset by mounting production costs for cobalt soaps and inorganic compouds.

Copper Sulfate—Production of copper sulfate in the United States in October amounted to 4,952 tons, and was 3 percent more than in September, reversing the downtrend of the past six months, according to the Bureau of Mines.

Shipments gained 17 percent and stocks on October 31 were little changed from inventories at the beginning of the month. At the October rate of shipments, stocks were sufficient for a month's needs.

Foreign trade data for October are not available. There were no imports in September, and exports were 1,611 tons.

Lime—Domestic sales of open-market lime in September (789,241 tons) increased slightly over the previous month's output (779,271 tons), according to reports of producers to the Bureau of Mines.

Sales for chemical and refractory uses increased while a slight decrease was noted in building and agricultural lime.

Lime sold for chemical and other industrial use in September increased to 463,922 tons, from 461,006 tons in August. Refractory (dead-burned dolomite) sales increased to 216,207 tons from 188,325 tons in August.

Manganese Dioxide—Despite earlier strong advances in this material, producers of other manganese chemicals anticipated no changes in such items as carbonate, chloride, hydrate, or sulfate for the present.

Nickel Chemicals—Several nickel salts moved up last week following the sharp increase in metal previously. All prices will become effective on spot January 1.

Nickel carbonate moved up 7c. per pound, and will be quoted January 1 at 80¾c. to 87¾c. per pound, barrels, delivered. Acetate, up 2½c., will list at 73c. to 80c. per pound; chloride, increased 2c., will list at 40½c. to 48½c. per pound, all prices as to quantity.

Sulfate will move up 2¼c. per pound, listing on January 1 at 32½c. per pound, bags, carlots, delivered, and 33½c. to 40½c. per pound, less carlots, same basis, as to quantity.

Soda, Caustic—The impact of the Suez tieup was felt more strongly by the export market last week. Producers indi-

cated that since the beginning of the crisis, with its consequent shortage of shipping from Europe, exports of caustic from this country have shown an appreciable increase.

It was reported that Latin American countries, which normally buy heavily from European sources, have turned to United States suppliers for the bulk of their requirements owing to the tight shipping situation in Europe.

Domestic inquiry for both solid and liquid grades tapered off last week in accord with the holiday season and inventory reduction policies of many consumers.

Tin Chemicals—With lower tin, potassium stannate was quoted at 71.3c. to 77.9c. per pound; sodium stannate, 58.4c. to 63.8c.; stannic chloride, 79.9c. to 80.9c.; anhydrous stannous chloride, 92.7c. to $1.421; hydrous crystals, 81½c. to 82½c.; and sulfate, 98.2c. to $1.002.

Nonferrous Metals

Arsenic—Last week's report that the new January 1 price for white arsenic powder was 3½c. per pound in barrels was incorrect. Actually, effective on spot and contract January 1, a producer has slated white arsenic to list at 4½c. per pound, barrels, carlots, f.o.b. works.

At the same time, the producer announced that effective on that date, crude arsenic (95 percent plus) is slated to list at 1.6c. per pound, bulk, carlots, f.o.b. works, and 3.1c. per pound, barrels, same basis.

Copper—Market continued quiet. Metal was listed at 36c. per pound, delivered US destinations, by primary producers.

The following figures supplied by the Copper Institute, show production, shipments, and stocks of copper metal, in tons:

World	*November*	*October*
Production:		
Crude primary	248,926	255,442
Secondary	10,020	13,924
Refined	254,077	263,752
Shipments	240,426	234,080
Stocks	343,636	333,952
United States	*November*	*October*
Production:		
Crude primary	90,084	95,109
Secondary	8,756	12,621
Refined	132,970	136,379
Shipments	125,902	120,727
Stocks	227,120	227,632

Mercury—Market continued quiet. Metal was quoted at $255 to $257 per flask spot.

Tin—Market continued to ease off from earlier highs. Metal was priced at $1.02¼ per pound, spot, on Friday.

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Data Offered

Instructions for safe unloading and handling of **sulfuric acid** are presented on a **wall chart** available from the industrial chemicals division of Olin Mathieson Chemical Corporation, 460 Park avenue, New York.

"**Condensed Reference File of Bakelite Plastics**" has been published in a revised 1957 edition by Bakelite Company, 260 Madison avenue, New York, a division of Union Carbide & Carbon Corporation, in order to help designers, engineers and fabricators choose the right plastic for any job.

Jefferson Chemical Company, Box 303, Houston, Tex., has published a **technical manual on ethylene oxide,** bringing up to date available information on the material.

A four-page folder charting structural formulas, properties, composition and popular applications of various **"Tenox" antioxidants** is being offered by Eastman Chemical Products, Inc., 260 Madison avenue, New York, a subsidiary of Eastman Kodak Company.

"Methylene Chloride, the Better Multipurpose Solvent," is the title of a twenty-four-page booklet outlining uses for this chemical offered by Dow Chemical Company, Midland, Mich.

Internal Revenue Service has published a report, **"Statistics Relating to the Alcohol and Tobacco Industries for the Fiscal Year Ended June 30, 1956,"** which is available for fifty cents from the Superintendent of Documents, US Government Printing Office, Washington, D. C.

A **technical bulletin** on potassium pyrophosphate listing typical analysis, properties, rate of solution and vapor pressure of hydrates, as well as uses in detergents, synthetic rubber, latex-based paints and water treatment, is available from Westvaco Mineral Products Division of Food Machinery & Chemical Corporation, 161 east 42nd street, New York.

United States Testing Company, 1415 Park Avenue, Hoboken, N.J., has announced publication of the first supplement to its booklet, **"Selected Scientific and Engineering Tables and Data,"** containing a wide variety of technical information.

A four-page technical bulletin **"Bulk Storage of Polyvinyl Acetate Emulsions,"** has been issued by Colton Chemical Company, 1947 Chester avenue, Cleveland, Ohio. The bulletin describes methods of shipment, storage tanks, piping and valves, pumps and installation costs. A schematic view of a bulk storage unit is included.

Robinson, Wagner Company, Mamaroneck, N. Y., has issued a brochure entitled **"Lanolin."** Purpose of the booklet is to provide current information relating to lanolin, as well as back history, chemical composition of lanolin and derivatives, properties and uses.

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Jobs & People

American Potash & Chemical Corporation, Los Angeles — **Henry DeArmond** has been promoted from assistant treasurer of American Potash to administrative assistant.

Bakelite Company, New York, a division of Union Carbide & Carbon Corporation—**Dr. Richard W. Quarles** has been named an associate director of the product and process development laboratories at Bakelite's Bound Brook, N. J., plant.

Catalin Corporation of America, New York—**Jack Weiss,** Catalin vice-president, last week was presented with a gold watch on the occasion of his twenty-fifth anniversary with the firm.

Ciba Company, New York—**Dr. Stanley F. Kudzin** has been made technical supervisor of Ciba's pigments department.

Diamond Black Leaf Company, Cleveland, Ohio—**Oscar E. Clary,** plant manager of Diamond Black Leaf's Richmond, Va., plant, has been named to a similar post at Louisville, Ky. He has been succeeded at Richmond by **Julian R. Trocki.**

General Magnesite & Magnesia Company, Plymouth Meeting, Pa.—**Harold D. Dietrich** has joined General Magnesite's sales staff as east coast sales representative.

Goodrich-Gulf Chemicals, Inc., Cleveland, Ohio—**Bo Adamson** has joined Goodrich-Gulf as a New England sales representative.

Michigan Chemical Corporation, St. Louis, Mich.—**Dr. C. G. Shultz** has joined Michigan Chemical's technical staff to work on rare earths. **Carl W. Clemons** has been added to the engineering research staff and has been assigned to problems dealing with the manufacture of new products. **John R. Morton,** research chemist, has been assigned to general inorganic problems. **John H. Tood** has been added to the company's organic laboratory staff.

Monsanto Chemical Company, St. Louis, Mo.—**Robert J. Schatz,** associate director of research for Monsanto's plastics division at Springfield, Mass., on January 1 becomes associate director of research at the division's Texas City, Tex., laboratory. He will be succeeded at Springfield on the first by **R. I. Dunlap,** assistant director of research there. **Dr. Ferdinand C. Meyer** has been named associate director of research in the central research department of Monsanto's research and engineering division. Dr. Meyer, an assistant director of research for the organic chemicals division, will take over his new post at Dayton, Ohio, on January 1. **Dr. Tracy M. Patrick, jr.,** will become assistant director of research for the organic chemicals division on January 2.

Wyandotte Chemicals Corporation, Wyandotte, Mich.—**J. W. Compton** has been promoted to the new post of supervisor of industrial applications research in Wyandotte's research and engineering division. **Ely Balgley,** former assistant manager of market development, has joined Wyandotte's business research department.

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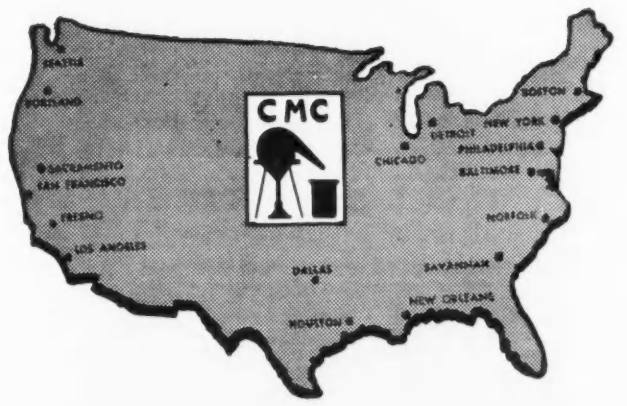

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Agricultural Chemicals

Fertilizer use in the United States during 1956 was 4.4 percent less, tonnage-wise, than during the previous year, according to a recent report by the National Plant Food Institute. With the average plant food nutrient content of commercial fertilizer still on the increase, total amount of plant nutrients consumed probably held its own—perhaps was even greater than in 1954-55, it was noted. Consumption during the year ended June 30, 1956, is estimated to have been 19,980,264 tons. This figure is a little less than a million tons under comparable 1954-1955 figures taken from the United States Department of Agriculture report on fertilizer consumption, or a decrease of 4.41 percent.

A sour note for agricultural chemical manufacturers was noted recently in reference to the government soil bank program. In an agricultural newsletter, a source voiced the opinion that officials are hopeful that the soil bank will withhold about 40-45 million acres of cropland from production next year (approximately one out of every nine crop acres) and provide a significant reduction in total crop output. While the smaller harvest would reduce marketings in the second half of 1957, improved prices and soil bank payments, are expected to boost farm income somewhat.

Price Trends

Advanced
Tankage, New York, 25c. per unit-ton.

Reduced
Hoofmeal, 25c. per unit-ton.

Comparative Price Indexes
(100 = 1949 average)

Last week	Prev. week	Last month	Dec. 24, 1955
108.70	108.70	108.68	110.78

For Current Prices see Page 9

January 1 Price Advances

Ammonium nitrate, $1 per ton.
Anhydrous ammonia, $5 per ton.
Nitrogen solution, 6c. per unit.

Animal and Plant Foods

The market for the most part appeared to show little variation from its position of the past months. Production has continued to pick-up somewhat in anticipation of early sales during the first months of the new year. Also, sales in certain areas have shown a slight upward tendency. However, this movement has been so light as to be considered less than a trend. Pesticides remained in good strength in the export market, it was said, with inquiries already arriving from domestic sales interests.

Anhydrous Ammonia — Production of this material during September, according to the Department of Commerce, amounted to 257,014 short tons, as compared with the 242,584 short tons produced during the month previous and the 231,954 short tons produced during September of the year previous. Stocks at producing plants during September show a decline to 125,054 short tons from the August level of 137,148 short tons.

Ammonium Nitrate—Production of fertilizer grade ammonium nitrate during September amounted to 138,086 short tons, as compared with the 139,635 short tons produced the month previous and the 119,961 short tons produced in September, 1955. Stocks at producing plants mounted in September, climbing to 224,935 short tons against the 212,780 short tons in stock at the end of August.

Ammonium Sulfate—Production of this material climbed four percent last month over the figure reached during the previous month, it was noted in a report by the Bureau of Mines. Production for September amounted to 158,198,749 pounds, as compared with the 152,049,917 pound production figure for September. This year's figure, however, is a decline from the September of 1955, which totaled 166,528,000 pounds. Production for the first ten months of this year amounted to 1,453,992,876 pounds while those for the same period in 1955 amounted to 1,630,492,100 pounds.

Sales of ammonium sulfate, according to the Bureau of Mines report, climbed 16.2 percent during October. The figures for that month were 128,763,444 pounds, while those of September were 110,856,845 pounds. Both figures were below the October, 1955, sales total of 138,260,800 pounds. The tally for the first ten months of the year amounted to 1,445,556,204 pounds sold, as compared with the 1,555,856,000 pounds sold during the first ten months of 1955.

Animal Proteins—This market as most of the industry at this time of the year, appeared to be marking time in anticipation of developments after the first of the new year. Hoofmeal slipped in price 25c., dropping to a $5.75 level. However, this movement was offset by New York tankage which moved up 25c. to $4.75 level. Other than this there was little movement in the market. A large catch of fish off the Carolina coast suggested the possibility of movement in the price level in the fishmeal and fishscrap market.

Castor Pomace—Production of this material continued virtually at a standstill with material being processed nearly completely in order to fulfill previous commitments. Previously, both producing plants had shut down, but then one opened up on a staggered production basis. The castor bean and castor oil import picture pretty much tell the story of what happened to the production of castor pomace in this country. In 1955, imports of castor beans amounted to 76,876,000 pounds while 48,487,000 pounds of castor oil had been imported. This year a reversal has taken place and 44,316,000 pounds of castor beans were imported while 76,871,000 pounds of castor oil was imported. The reasons are obvious but the effect upon the castor pomace industry has been stifling if not completely mortal.

Lime—Production figures released last week by the Bureau of Mines show a sharp decline in September figures from those of the same month last year. The figures for this year were 14,512 short tons as against the 26,360 short tons produced in September, 1955. This year's figures also showed a decline from that of the month previous, which totalled 17,943 short tons. January-September totals for this year were 191,798 short tons, as compared with the 201,271 short tons produced during the same period of 1955.

Broken down, the government figures show that quicklime production dropped to 3,396 short tons during September from the 7,837 short tons produced the month previous and the 12,687 produced during the September of the previous year. January-September production total amounted to 69,890 short tons this year, as compared wtih the 66,639 short tons produced during the same period in 1955.

Hydrated lime production shows little variation in monthly figures, though the nine month aggregate figure shows some decline. September production amounted to 11,116 short tons while August production had been 10,106 short tons and September, 1955, production had stood at 13,673 short tons. The nine month figure for this year amounted to 121,908 short tons, a smaller figure than the nine months of 1955 figure of 134,632 short tons.

Superphosphate & Other Phosphatic Fertilizer Production

Following are data compiled by the Bureau of the Census indicating superphosphates and other phosphatic fertilizer produced and shipped in the United States, January to October, for this year and 1955. Included are percentage changes. All material is 100 percent A.P.A. in short tons.

Grade	1956 Production	1956 Shipments	1955 Production	1955 Shipments	Production	Shipments
Normal	1,231,831	680,034	1,254,940	676,204	— 2	+ 1
Enriched	11,294	4,211	34,518	11,707	—67	—64
Concentrated	630,861	595,302	567,852	533,625	+11	+11
Wet-base goods	5,159	5,520	6,016	6,375	—14	—13

Petroleum Derivatives

Of major concern in the market last week was the delay by the Texas Railroad Commission in posting January allowables. Sources closely concerned with the critical oil shortage in Europe, brought about by the Suez crisis, were none too happy with the delay, and feeling was strong that the commission's delay in announcing quotas would deal a severe blow to any hopes of alleviating the European petroleum shortage in the near future.

On the domestic scene, solvents and diluents moving to the paint industry continued to encounter active demand, although it was conceded that inquiry had suffered a mild slump owing to the approach of the holidays.

Booming steel output, and a consequent good supply of coaltar source benzol and toluol, served to dampen the prospects of petroleum producers in these markets.

A consolation to petroleum sources was the continuing strong demand for high octane gasoline. As a result of this situation, more benzol and toluol were being held for captive use in the upgrading of gasoline.

Liquefied petroleum gases were seasonally firm, and the holiday period was not expected to cut too sharply into consuming inquiry.

Wax prices were steady, and producers of microcrystalline waxes and paraffin did not look for any radical changes in the near future.

Price Trends

Advanced

None.

Reduced

None.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Dec. 23, 1955
105.71	105.71	105.71	104.32

For Current Prices see Page 9

Solvents and Diluents

Benzol—Demand for motor grade material continued active, in view of the stress placed on higher octane gasolines for the newer cars.

There has been some scare buying owing to the Suez crisis, it was reported, but this was believed to have been held at a minimum, particularly at a time of year when consumers have an eye toward year-end inventory positions.

There was some concern in this market, as well as others, over delay of the Texas Railroad Commission in announcing the crude oil allowable.

There was a tendency toward grave concern in some quarters, and reports were that supplies were beginning to tighten up in some areas.

Cleaner's Naphtha—Supplies were still ample against a seasonable rate of buying interest. Prices quotations held unchanged at levels established many months ago.

Mineral Spirits—Paint trade and industrial finishes demand continued active, although not to the degree achieved earlier in the quarter.

Chief reason for the mild decline in sales was the holiday season, which is expected to cut sharply into consuming demand until early in the first quarter of 1957.

Partial Aromatic Solvent—Demand has been excellent for the most of this quarter, particularly in view of heavy automobile production.

Strikes in various assembly and other plants in the automotive industry have been scattered, but no effect has been noted against sales of high-flash naphthas.

Toluol—The record output boom in steel production has put a damper on the hopes of many in the petroleum toluol industry that their product would be able to hold its own in the market.

Once again, coaltar material has been pouring out in large volume, and consumers have been able to get what they need without delay.

Helpful to the petroleum toluol market has been the increasing demand for high octane gasoline. As a result, refiners have been turning more and more toluol back into captive applications, in order to upgrade gasolines.

Crude Oil Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended December 8, totaled 273,617,000 barrels, according to data reported to the Bureau of Mines. Compared with the total of 275,253,000 barrels for the preceding week, this represents a decrease of 1,636,000 barrels, comprising a decrease of 2,630,000 barrels in stocks of domestic crude and an increase of 994,000 barrels in stocks of foreign crude.

Xylol—Imports during the first nine months of the year were reported at 46,710 pounds by the Bureau of the Census. In last week's trading the market remained very active, with prices showing a steady tone. As reported here previously, supplies have become a bit tight in the cokeoven field, as a result of which much of their production is sold up in advance. In this situation many buyers have turned to the petroleum industry to fill prompt requirements.

LPG'S

Inventories of liquefied petroleum gases fell to 660,402 barrels on November 30 from 691,473 barrels on November 15, as reported by the American Petroleum Institute. Liquefied refinery gas stocks were 49,135 barrels on November 30, as compared with 50,709 barrels on November 15.

In a recently issued Bureau of Mines report, October 31 stocks of LPG's were reported at 565 million gallons, a gain of 22 million gallons over November 30 stocks, representing a gain of 38 million gallons in propane stocks and a decline of 18 million in butane stocks.

Miscellaneous

Crude Oil—Current reports of the industry for the week ended December 7 indicate an increase in crude oil production and a decrease in crude runs. According to the A.P.I., the daily average output of crude (including lease condensate) was 7,353,000 barrels, an increase of 220,000 barrels from the preceding week. Daily average crude runs to stills of 7,865,000 barrels were 249,000 barrels below the preceding week, and 247,000 barrels above the week ended December 9, 1955. Runs of foreign crude amounted to 828,000 barrels daily, compared with 923,000 barrels in the preceding week. For the four-week period ending December 7, crude oil production averaged 7,212,000 barrels daily and crude runs to stills averaged 8,014,000 barrels daily with runs of foreign crude averaging 934,000 barrels daily.

Crude oil production in Saudi Arabia during November was reported at 21,592,614 barrels, or an average of 719,754 barrels per calendar day. These figures compare with 31,232,939 barrels, or an average of 1,041,098 barrels per calendar day during the same month last year.

A major oil company operating in the Mideast announced last week that its total production of crude oil during the first eleven months of this year amounted to 339,523,089 barrels, an average of 1,013,502 barrels per calendar day, as compared with a total of 320,365,230 barrels, an average of 959,177 barrels per calendar day, during the same period of last year.

Waxes

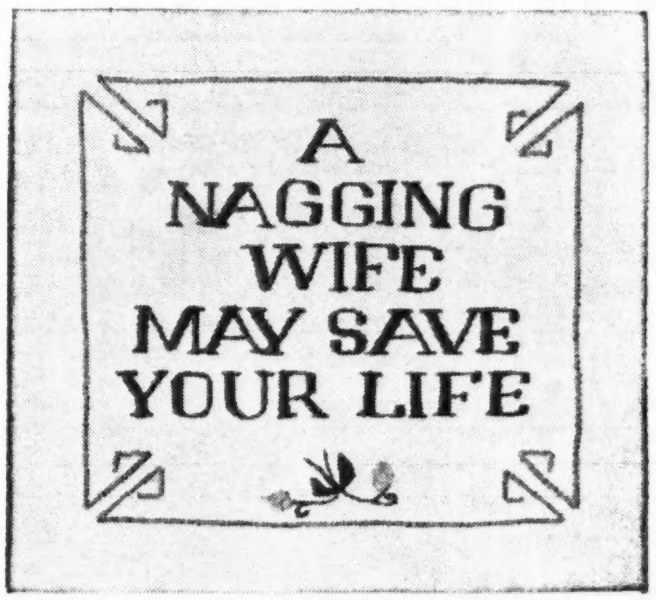
Microcrystalline — Quotations of long standing held without change. The last price change was an advance of ½c. per pound, October 1.

Since deadlines for issuing new contracts have expired, prices on contract for all grades were expected to continue without change through the first quarter.

Demand last week was seasonally off, but general inquiry was expected to gain strength during the first quarter. Supplies were available for prompt shipment.

Paraffin—Crude scale and refined prices held without change last week, and no revision of schedules was anticipated for the first quarter.

Paper industry inquiry, while still active, was less strong than previously, owing to the approach of the holiday season. Stocks were ample, and deliveries against contracts held in good volume.



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Aliphatic Organics

Brisk demand for resins and increased trade in pentaerythritol for use in protective coatings buoyed a strong market in formaldehyde last week. Demand was further sharpened as the January 1 deadline for a price increase approached. Supplies were ample. Production was maintained at a high level, and the industry was building on the basis of predictions of a substantial increase in demand over the next 10 to 15 years for formaldehyde. Activity in resins was also viewed as the chief factor in improved trade in glycerine in the fourth quarter. Though the market for glycerine was by now much better than it had been last summer, it was still not as strong as it was a year ago, producers reported.

A ½ cent per pound across the board increase in prices of mesityl oxide, initiated by a major producer last October 1, were due to become industrywide January 1.

While the abnormal demand stimulated by approaching higher prices tended to mask the underlying market position of methanol, producers said there were definite signs last week that the market was stiffening. The current flurry of orders promoted some dislocations attributable to disturbance of the equilibrium governed by shipping schedules out of Gulf points, warehouse capacity at major centers of consumption and the pressure of demand. However, producers reported that supplies were generally adequate.

Price Trends

Advanced
None.

Reduced
None.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Dec. 23, 1955
130.81	130.81	130.46	130.68

For Current Prices see Page 9

January 1 Price Advances

Formaldehyde, inhibited, 3/10c. per lb.
uninhibited, ¼c. per lb.
Hexamethylenetetramine, tech., 1.1c. per lb.
USP, 2c. per lb.
Mesityl oxide, ½c. per lb.
Methanol, 2½c. per gal.
Paraformaldehyde, 91%, powd., 7 10c. per lb.
USP, X, 7/10c. per lb.

Soft spots that appeared early in the year in the price structure for acetaldehyde had disappeared in face of steady demand at good volume during the past six to eight months. Chief factor in the improvement was seen to be DDT, which was moving in heavy volume in both domestic sales and foreign trade.

By-product acetone from phenol manufacture via the cumene process had evidently balanced the market for acetone. Plans to produce more phenol by the process would bring more of this material onto the market. There have been no appreciable shortages of acetone now for some six months.

Stability, which appeared in the week previous in the New Orleans blackstrap molasses market after three months of rising prices, again governed the market in the week ended last Monday. Heavy deliveries against old contracts had built consumer inventories high, and buyers continued to resist high price. Demand was again only slow to moderate. Supply was adequate. Price was unchanged from the week previous.

At New York, blackstrap was unchanged in price, supply adequate, demand moderate.

Acetaldehyde—Soft spots that appeared in the price structure early in 1956 had been wiped out by last week.

Demand through the past six to eight months has been very strong, with volume of trade remaining steady at good volume throughout that period. The market was buoyed by uncommonly heavy demand for acetaldehyde for use in manufacture of DDT, which was moving briskly in both domestic sales and the export trade.

As a result, the current quotation of 10c. per pound on tanklots was now regarded as firm.

Acetone—Trade continued at steady volume last week. The picture has changed little in the past six months. Evidently, the availability of additional material via the cumene process for manufacture of phenol has tended to balance the market for acetone. A further stabilizing influence, trade sources reported, was announced intentions of prime producers to increase their production capacity.

There have been no apparent shortages for several months. It was nip and tuck with supply and demand in the current market. Production would get an additional boost from projected increased manufacture of phenol by the cumene process.

Tariff Commission's figure for acetone production during September, in part an estimate, was 52,309,549 pounds, bringing the total for the first three quarters in the current year to 451,534,188 pounds. Total output in entire year 1955 amounted to 539,247,041 pounds.

Formaldehyde — Sales were reported brisk last week. January 1 price increases stimulated the market conspicuously, but over and above that was a volume of trade that was notably heavy even for this time of year. The underlying market tone was firmed up by lively trade in resins generally, producers reported. In particular, the phenols, ureas and melamines were providing good support. Another strong demand factor was increased inquiry for pentaerythritol for use in protective coatings.

Supply was more than ample. Production was maintained at a high level. Substantial new plant capacity and additions to existing plant facilities were building or projected.

Present capacity was put at about 2.5 billion pounds a year, with open market demand running at around 1.4 to 1.5 billion pounds a year and captive requirements heavy. The industry was shooting for production capacity based on predictions that demand would climb to 6 or 8 billion pounds per year by 1970.

Tariff Commission reported production in September amounted to 114,429,654 pounds, bringing the cumulative total for 1956 at that point to 994,989,195 pounds. Total output in 1955 was 1,195,459,108 pounds. (All figures are based on 37 percent formaldehyde content).

Glycerine—Producers noted generally improved tone during the past three months. It was believed that this was due chiefly to greater activity in the resins field, particularly with respect to movement of resins to the automotive industry. Trade was still not as brisk as it was at this time a year ago, however.

While domestic consumption has risen appreciably in the past few weeks, the effect on inventories has been offset in part by increased imports. Domestic production has meantime held rather evenly at a high level.

Demand has been steady through the fourth quarter.

The supply situation for synthetic material has been stabilized notably during the past year. The one unsteady influence still bearing on this market was the spasmodic appearance of low priced crude from diverse foreign sources. In general, the volume of this material was not very heavy in relation to over-all demand for refined glycerine. While imports had increased in recent months, they were still less than they were a year ago.

Producers said prices on refined material were expected to hold at current levels at least through first quarter 1957.

Itaconic Acid—Sales were reported last week at 44c. per pound for technical material in carlots, on a works basis, 45c. per pound for less carlots. Purified material brought 54c. per pound in carlots, same basis, and 55c. per pound in less carlots.

This material (methylene succinic acid) was finding a market in its use in resins and esters. A substantial part of the trade was in export.

It was offered in 25, 50, 100 and 250 pound fibre drums.

Mesityl Oxide—A ½c. per pound increase in prices across the board, initiated effective October 1 by one major producer, was now slated to become industrywide on January 1. Quotations generally

Aliphatic Organics

prevalent after next Monday will be 12c. per pound on tanklots, 14½c. per pound on carlots and 15½c. per pound on less carlots, all prices on a delivered basis.

A major producer who announced increased prices last week said the move was necessitated by increased costs of manufacturing, labor and freight.

Methanol — Seasonally heavy demand was swollen last week by a rush in spot trade as consumers stocked up in advance of the January 1 price increase. Speculative buying tended to mask the true position, but trade sources reported that the basic market showed signs of stiffening. There was general agreement that demand was much firmer in recent weeks.

Production and producers' stocks were generally ample. There were no severe shortages, as such, though the uncommon burden on distributing facilities led to occasional delays here and there. These in turn were attributable for the most part to transitory disturbance of the equilibrium governed by shipping schedules from Gulf points to major consumption centers, warehouse capacity at points of distribution and the pressure of demand.

Molasses—The stability which appeared in the week previous in the New Orleans blackstrap market, for the first time in three months, was again evident in the week ended last Monday. For the first time since late September, prices were steady and unchanged at both New Orleans and New York.

Buyer resistance to high price continued to limit demand at New Orleans. Supplies were adequate, and fulfillment of old contract commitments with heavy shipments had built consumer inventories up to high levels. Agricultural Marketing Service described demand at New Orleans as slow to moderate.

At New York, demand was moderate, supply adequate.

Pentaerythritol—Brisk trade was reported again last week. Producers said the market was appreciably stronger than it had been, say, six months ago.

Heaviest current demand depended on high gloss, flexibility and surface film strength, retention of luster and resistance to alkalis and weather of PE alkyd resins. The latter were in strong demand for metal finishes, particularly in the automotive industry and for manufacture of farm equipment. High grade house paints accounted for a substantial volume of trade also, as did the use of PE in synthesis of ester gums.

n-Propyl Acetate—Prices were not scheduled for further increase effective January 1, as erroneously reported in this department in the previous issue of OPD. Quotations after that date will remain unchanged. They are 11¾c. per pound on tanklots, 14¼c. per pound on carlots and 15¼c. per pound on less carlots. This schedule has been in effect since October 1 of this year.

Vinyl Acetate—Trade was brisk last week, volume holding to the level observed fairly constantly through the last several months. Material was moving substantially better now than it was at this time a year ago, producers reported.

Though the history of this polymer was too brief to provide a distinct pattern of performance, and the pattern was obscured by recent entry into the trade of major new producers, trade sources expected a seasonal decline to show up through December and January.

Demand was attributed chiefly to use of the monomer in adhesives for paper, nonwoven fabrics and glues and in vinyl acetate emulsion for paper coatings and as a finishing agent for sizing synthetic textiles, the manufacture of copolymers for use with vinylchloride, particularly for floor and wall coverings and in manufacture of polyvinyl acetate emulsions for protective coatings.

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Water Pollution Hearings Scheduled for January 16

Public Health Service has called its first public hearing for January 16, 1957, at Homer, La., under the federal water pollution control program, amended and strengthened by congress last session.

The hearing will consider charges that the Corney Drainage system flowing from Arkansas into Louisiana's 1940-acre Corney Lake, is being polluted by Arkansas oil wells discharging acid, salt, and other wastes into the waters.

The charges have been leveled against four operators who have failed to take the necessary steps to stop the pollution. A special board has been established to conduct the hearings and make recommendations for action to the Surgeon General.

Diuron Tolerance Set Up

The Food and Drug Administration has amended its pesticide regulations to provide for a tolerance of one part per million for residues of diuron in or on grapes. Diuron is the newly established common name for the pesticide chemical, 3-(3,4-dichlorophenyl)-1,1-dimethylurea.

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Coal Chemicals

Other than the January 1 price advances noted in the box below, there were not any price changes in this market expected to take effect at the new year. Most products of large volume which were due for price adjustment were adjusted upward effective October 1, and consequently price schedules established then were being carried over into the new year.

Business generally was regarded as good, but had been considerably more sluggish during the fourth quarter than it was expected to be. This was particularly true of dyestuff intermediates. Naphthalene and phthalic anhydride were beginning to move and prospects for a heavy volume of business looked good for the first quarter due to the automotive and other hard goods business getting rolling at a high production rate.

Resorcinol was in ample supply to take care of the well sustained demands of the synthetic resin and adhesives industry. Phenol was still somewhat sluggish, with more plant capacity than the demand could use, but it could not be said that business was bad. Benzol moved promptly from production into consuming channels from all domestic sources. So far, this and imports arriving were sufficient to meet all needs, and the market was in good balance. Some quarters felt they saw a potential threat to the import supplies in the high tanker rates which have skyrocketed in recent weeks, and in the shortage of tankers for shipment because of the stress of the Suez canal situation.

Price Trends

Advanced
None.

Reduced
None.

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Dec. 23, 1955
115.56	115.56	115.56	114.62

For Current Prices see Page 9

January 1 Price Advances

Acid, fumaric, 1½c. per lb.
Coaltar, crude, 1.6c. per gal.
Creosote, coaltar, crude, 2c. per gal.
soln., 80%, 1.92c. per gal.
Dyes, coaltar, for general use in cloth dyeing, Color Index numbers 27, 31, 36, 40, 57, 79, 151, 161, 176, 179, 180, 185, 202, 208, 216, 234, 246, 275, 289, 299, 304, 326, 332, 365, 382, 401, 406, 419, 420, 448, 518, 561, 593, 596, 620, 639, 640, 655, 657, 662, 667, 671, 698, 720, 729, 749, 814, 841, 922, 978, 1054, 1078, 1085, 1096, 1099, 1100, 1113, 1150, 1151 and 1217; prototype numbers 4, 14, 24, 80, 202 and 244; oil soluble Color Index number 73, about 18 percent.
Maleic anhydride, 1½c. per lb.

The institute estimated that steel production in the week ended December 22 would amount to 102.0 percent of theoretical capacity, equivalent to 2,511,000 tons of steel. Output was 2,522,000 tons in the week previous, 2,463,000 tons in the comparable week in November and 2,338,000 tons in the corresponding week one year ago.

Steel output amounted to 10,566,000 tons in November, bringing the calendar year total for the first eleven months to 104,389,104 tons. Production in November, 1955 was 10,247,398 tons and brought the total for the first eleven months of that year (the record year for steel production) to 106,532,566 tons.

Basic Products

Benzol—Large volume domestic production continued to be the pattern in this market, with material moving promptly from production into consuming channels. Since domestic output was not enough to accommodate all industrial demands, there was some dependence on imports which run around 60,000,000 gallons a year. The current shortage of tankers created by the Suez situation was somewhat of a threat to the import supply position, but had not as yet been particularly adverse, except for the sharp increase in tanker freight rates. The future of tanker carrying availability was uncertain.

Sales of cokeoven benzol during October were reported by the Bureau of Mines as amounting to 14,607,401 gallons, as against the 13,690,600 gallons sold during October of last year. This brought the first ten months of sales for this year to 134,934,362 gallons of cokeoven benzol as against 136,930,900 gallons sold during the same period of 1955.

Stocks at the end of October stood at 6,112,150 gallons as compared with 5,249,574 gallons a year ago. Thus stocks were well in line with the sales and production patterns as this year and last are compared, and indicate that the cokeoven industry has had no problem in moving all of the benzol that it could produce.

Cresylic Acid—Business volume was quite good and characteristic of the market over recent weeks, virtually all grades moved well including those that used to be sluggish and somewhat of a disposal problem. There was no shortage of material, despite the sustained good business volume, and the market was considered to be in a comfortably balanced position. Prices were firm and unchanged.

Naphthalene—Ocean freight rates on dry cargo had just about tripled in the past six or seven weeks. The Suez closing has brought about an acute shortage of bottoms. The effect on imports of naphthalene, however, was not expected to be severe.

Demand remained steady. Production was heavy, supplies abundant.

Sales of naphthalene, according to the Bureau of Mines, amounted to 11,205,480 pounds of cokeoven material in October of this year, compared with sales of 15,067,100 pounds during October of 1955. Total sales figures of cokeoven naphthalene of all grades for the first ten months of this year were 113,347,599 pounds as against the 142,253,000 pounds sold during the same period of last year.

Stocks at the end of October stood at 28,677,008 pounds mostly of the grade solidifying at 76 degrees and under 79 degrees, as contrasted to October, 1955, stocks of 5,425,218 pounds. These figures explain why there is currently an abundance of supply on naphthalene, and why supplies for the weeks ahead under current potential production rates are not adversely affected by the threat of shortages of bottoms for bringing in imported material.

Phenol—The industry was not producing at capacity because demand was not

Cokeoven Output: October

Following are cokeoven production statistics comparing October, 1956 and the same month in 1955 as reported by the Bureau of Mines. Only cokeoven output is represented. (Creosote content of creosote-coaltar solutions was not calculated prior to January, 1956.)

	October 1556	*October* 1955	*First Ten Months* 1956	1955
Benzol (excluding motor grade)..gals.	16,651,277	15,354,400	143,829,078	141,546,700
Creosote oil:				
Creosote-coal tar soluton.....gals.	224,243	499,800	3,097,492	4,343,400
Content in solution.....gals.	185,000	.....	2,602,528	.....
100 percent straight distillate....gals.	2,425,332	1,679,400	18,680,937	21,432,800
Total 100 percent creosote.....gals.	2,630,332	.....	21,283,465	.....
Crude coaltar..... .....gals.	76,516,619	73,797,100	683,087,737	703,346,700
Naphthalene, crude:				
Solidifying under 74° C.....lbs.	3,723,547	3,347,800	30,114,976	30,595,500
At 74°C and under 76° C.....lbs.	1,563,200	1,677,900	13,412,154	15,390,800
At 76° C and under 79° C.....lbs.	11,187,780	11,208,900	103,101,867	106,656,400
Total .....lbs.	16,474,527	16,234,600	146,628,997	152,642,700
Solvent naphtha, refined.....gals.	25,215	37,600	164,163	230,700
Toluol .....gals.	3,417,886	3,116,900	30,332,686	31,570,700
Xylol .....gals.	924,149	901,600	8,561,971	9,451,200

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COAL CHEMICALS

Coal Chemicals

sufficiently heavy to justify full scale manufacturing operations, and also because production capacity has been built up in this country to a high level, sufficient to meet any demands that might fall upon the industry. Currently, business volume had improved over the level of the second and third quarters, but was still not at the pace expected by predictions of what the fourth quarter of this year was supposed to be.

Nevertheless, it could not be said that business was bad, either. As for the heavy plant capacity, the feeling was expressed in the industry that it was not necessarily excessive, and that the steady growth of the industry would in time build up to its full use. Price patterns at the year-end were unchanged.

Pyridine—Some trade sources reported a moderate improvement in the tone of this market in recent months, but it was still flabby.

Cost factors evidently prohibited a price reduction on domestic output, while cheap material from behind the Iron Curtain continued to come into this country. Some of the foreign pyridine sold for as little as 40c. per pound c.i.f.

Competitive chemicals were taking a large bite out of the market that formerly sustained the trade in this item.

Toluol—Inventories were still growing last week, but the position remained substantially improved from that prevailing before last summer's steel strike.

Potential market impact of the new high-octane automotive fuels may have been over-rated, in the view of some informed trade sources.

Europe continued to provide an outlet for surplus material, but it was spotty. Only in Scandinavia was demand consistently strong enough to support trade in fairly heavy volume, with demand in Italy running a rather poor second.

Xylol—Quotations were steady at long established levels. Supplies in the coke-oven industry were said to be on the tight side, but were found entirely adequate to meet contract deliveries. Petroleum producers are getting a bigger share of orders for immediate delivery because of their greater amplitude of supplies.

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ending Dec. 23 was as follows:—

Ammonia liquor	lbs.	977,114
Ammonium sulfate	lbs.	41,606,162
Benzol	gals.	3,719,338
Coaltar	gals.	18,281,495
Creosote	gals.	709,195
Naphthalene, crude	lbs.	3,955,737
Pyridine	lbs.	14,184
Toluol	gals.	819,515
Xylol	gals.	236,398

Intermediates

Phthalic Anhydride—At the year-end business in this item was a bit slow, although moving into good volume. Buying had been heavy to beat the October 15 price advance, by consumer agents who not only purchased heavy in order to beat the price rise, but also in anticipation of stepped-up demand stemming from the automotive trade.

The latter did not develop as rapidly as expected, but by the year-end was beginning to roll. Heavy volume consumption was expected for the first quarter of the year, but January shipments were expected to be quite heavier than they had been this month. No further price changes were expected for the months immediately ahead.

Picolines—Gamma isomer remained urgently in demand. The export market was particularly vigorous.

Trade in beta was fairly brisk in steady volume.

Production of alpha was largely captively consumed. What material was offered on the open market was taken up promptly.

Resorcinol—The technical grade used in the manufacture of synthetic resins and adhesives was in well sustained demand, but there was ample material available to meet all calls. Business was good and material moved promptly from production into consuming channels, but there was no scarcity, the market being in relatively good balance overall.

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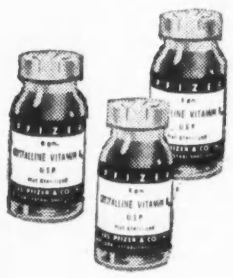

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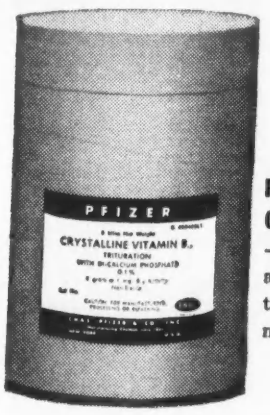

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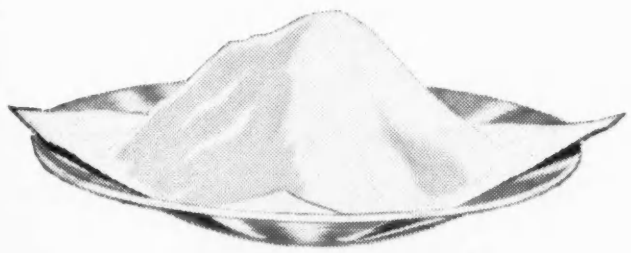

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Drugs, Fine Chemicals

Activity in fine chemicals markets last week was somewhat limited. Producers indicated that large consumers were carrying heavier inventories since it was expected that replacement costs in February would be higher. No price changes were noted. Potassium and sodium hydroxides, reagent grades, were steady after increases of 5 cents per pound two weeks ago. Gum prices continued to fluctuate, except for Karaya which was steady. Arabic was very strong and dealers continued to report limited supplies for spot delivery. Earlier indications that locust bean prices would be increased were realized when it was reported that the going price was up 2 cents. Material available in February was expected to be limited and of doubtful quality. Tragacanth was scarce and high priced. Increases in freight rates and the foreign political situation were again cited as factors causing unsettled conditions in gum as well as botanical drug markets.

Price Trends

Advanced

Gum, Arabic, 1c. per lb.
Locust bean, 2c. per lb.

Reduced

None.

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	Dec. 23, 1953
65.26	65.26	65.24	66.41

For Current Prices see Page 9

Fishliver oils were reported strong as a result of the fact that the fishing has been so poor in the past season. Dealers reported a scarcity of shark livers and said that low concentrations of fishliver oils (in the range of 4,000 to 6,000 A units per gram) were not being offered. Codliver oil prices were unchanged although supplies were said to be somewhat limited and demands were moderate to heavy.

Vitamins and analgesics were in good demand. Antihistamines were said to be moving in increased volume this year over last. Aspirin makers continued to report a good volume of business being transacted. Caffeine was strong and domestic products were competing heavily with imported materials. It was noted that a producer has announced large scale production of niacin by a process involving catalytic air oxidation. Niacin has been in very good demand since the beginning of the fall vitamin season.

Piperazine and its salts were being widely used and facilities lately expanded for the production of crude, are assuring adequate supplies to manufacturers of anthelmintic piperazine salts.

Analgesics — Producers reported very good demands for a general line of analgesics. It was surmised that manufacturers of cold remedies and winter preparations were buying in increased volume since they felt that inventory replacement costs in February might be higher.

Acetophenetidin, as an antipyretic and analgesic, was said to be finding continued good use. Antihistamine production was on the increase after having suffered a letdown during the past few years. It was estimated that production by the end of this year might total 165,000 pounds, about 15,000 pounds more than last year. Use of antihistamines in various ethical medicinals was regaining for them ground lost after they were hailed as infallible cold cures in the past. Aspirin producers again stated that sales volume was very good and compared favorably with that of last year. Caffeine continued in a strong competitive market. Acetanilide was finding limited use as an analgesic and antipyretic. Prices were unchanged.

ACTH—Consumer interest was good and supplies were quite adequate to handle the current requirements of the trade. Limited clinical tests have shown ACTH gel to be effective in the treatment of diarrhea following radio therapy. Prices were unchanged from previous quotations.

Ammonium Oxalate—Fine granular ammonium oxalate was available in drum quantities at prices ranging from 26½c. to 31c. per pound. Stocks on hand were reportedly sufficient to care for the needs of the trade at this time. Principle use for this item is as a chemical reagent.

Calcium Lactate — NF material l.c.l., f.o.b., works, was listed at 23c. per pound. Demand was routine and supplies quite adequate at this time. Prices are unchanged from those previously quoted. Dealers indicated that they did not anticipate changes in the near future.

Cerium Compounds—Prices were firm and unchanged. Demand was said to be rather routine in this market. NF oxalate, bags, works, was quoted at $1 per pound while ceric oxide, optical grade, 50 pound lots or more, was priced at $1.85. Cerium hydrate, 77%, was priced at $1.74 in 100 pound lots while 74% material was available at $1.44 per pound. Supplies were good and sales steady at a low volume.

Diethylstilbestrol — Dealers reported moderate consumer interest in this synthetic estrogen. It was pointed out that diethylstilbestrol, the most active of the stilbene compounds, possesses the advantage of being highly active by mouth as well as percutaneously. Clinical evidence indicates that stilbestrol is not more toxic than the natural estrogens it was said.

Supplies were quite adequate to handle the current modest demands of the trade. Prices were ranging from $90 for 10 kilo lots to $110 per one kilo.

Fishliver Oils—Dealers reported a continuing firm tone in the market for codliver oil with prices unchanged. Supplies were somewhat light. Due to poor fishing conditions, offerings from Japan were said to be limited. Trade sources indicated that fishliver oils in low concentrations (4,000 to 6,000 A units per gram) were not being offered. Consumer interest was said to be seasonally very good.

Homatropine Methylbromide—Good use for the methylbromide of the alkaloid homatropine has been found in the treatment of gastro-intestinal spasm it was said. It has been shown to be less active than atropine but also to have fewer adverse side effects. Prices have been unchanged in over a year. Dealers indicated that stocks were good and no supply problem was anticipated.

Magnesium Trisilicate—Producers reported appreciable demands from makers of antacid products. This item has long found favor in the trade, it was said, due to its ability to assume proper viscosity in suspensions in a relatively short time. Supplies were adequate and moving in good business volumee. Prices were unchanged.

Niacin—Producers continued to report consuming demands for nicotinic acid and amide last week. Niacin has been in a generally strong position since the beginning of the fall vitamin season. Increasing use was said to have come from cereal manufacturers and makers of multi-vitamin enrichment mixes. Supplies were quite plentiful and prices were firmly quoted for both the acid and amide at previously reported levels.

A producer announced large scale production of niacin by a process involving catalytic air oxidation. The same producer also was offering feed grade niacin for use in compounding animal feed supplements.

Piperazine and Salts—Crude piperazine in carlots was priced at $3.15 per pound while less than carlot quantities were quoted at $3.30. Crude facilities were expanded this fall by a major producer in response to the increased demand originating in part from makers of citrate, adipate and phosphate salts to be used as anthelmintic agents. Trade sources indicated that supplies were adequate at the present time. Hexahydrate prices ranged from $8 to $8.50 per pound.

Pyridoxine—Producers reported continuing good demand for vitamin B6. Prices were firmly quoted as they have been in recent months for all of the vitamins. Census bureau reports indicate that September production of pyridoxine amounted to 3,967 pounds while in August 3,248 pounds were turned out.

Reserpine—Trade sources said that demands for reserpine were steady and prices on kilo lots were quoted at $3. Competition was said to have become increasingly heavy as major producers have set-

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Drugs, Fine Chemicals

tled into the swing of full-scale, commercial reserpine production. Dealers tended to favor African rauwolfia vomitoria as a raw material since it has been pretty well established as the substance which gives best yields at the lowest cost. It was felt that current clinical investigations instituted by federal agencies into the use of tranquilizer drugs would tend to stimulate consumer interest in coming months. A report during the past summer which tells of a method for the production of synthetic reserpine on a laboratory scale has also helped to add impetus to the increased activity noted in this market. It was pointed out that under intensive technological and laboratory investigations, the price of reserpine has been reduced to one-tenth of what it was when first marketed a little less than three years ago.

Rutin—This crystalline glycoside was in moderate demand and producers said stocks on hand were quite adequate at this time. Found in buckwheat and other plants, rutin has been used traditionally for the strengthening of capillary blood vessels. The kilo lots were to be had from dealers at $17 while 5 kilos were priced at $17.50 and single kilo lots sold for $18.

Silver Salts—Demand was steady and supplies quite plentiful it was said. Silver cyanide in 2,500 ounce lots was quoted at 87c. per ounce while 1,000 ounce lots were 3/8c. higher. Five hundred ounces were priced at 87½c.

Silver nitrate in 2,500 ounce lots was quoted at 62 3/8c. while 1,000 ounces went for 63½c. per ounce. Lots of 500 ounces were reported selling for 64 1/8c. while 250 ounce lots were priced at 64 5/8c. per ounce. Prices have been unchanged in recent weeks.

Sodium Lactate—Edible 50% material was available in drums and carboys, works, at 21½c. per pound while technical sold for 16½c. Edible 60%, same basis, was priced at 26½c. per pound. Trade sources reported stocks on hand quite adequate. Demands were said to be sluggish with sales at a low volume.

Sulfas—The market continued to show a firm tone with sizable demands being made by manufacturers of triple-sulfa preparations and products containing sulfas as well as other antibiotics. Supplies were quite adequate and prices firmly quoted. Increasing competition from foreign sources served to stimulate business activity in domestic markets.

Botanicals

Consumer interest in botanical drugs continued sluggish last week. Many items were scarce and prices were high. It was said that a combination of factors had brought about the disappointing situation in drug buying this year. Poor crops were partially to blame. There were added difficulties imposed since supplies coming out of the Middle East are limited and shipping schedules have been somewhat curtailed as a result of freighters having to go by way of Cape Horn.

It was pointed out that although botanical drug sales have been falling off for a number of years, there is still a substantial market for the crude drugs which can be used in the manufacture of more finished pharmaceutical products containing the newer antibiotics and synthesized medicinals.

The supply of mandrake root was said to be somewhat better than it had been. Canadian and Oregon fir balsams were available as were black haw bark, both tree and root. The latter item was scarce and would probably be so for the next six months. Cascara bark was still in short supply as were a host of other domestic and imported botanical drugs.

Black Haw Bark—Root and tree bark were still scarce as were the rest of a general line of domestic botanicals. It was pointed out that it was difficult to gauge the availability of a botanical product since materials are harvested in limited quantities and unusually heavy consumer demands between seasons can bring about acute shortages.

Fir Balsam — Demands were reported steady and supplies of Oregon and Canadian fir balsam were said to be good. Prices on Oregon were quoted at $4.50 per gallon while Canadian was listed at $32 per gallon.

Gums — The market for arabic continued to show a firm tone last week. Dealers reported amber sorts were up 1c. and ranging from 21c. to 23c. per pound. Supplies on spot were limited. As reported previously, it was not expected that futures would be effected.

Locust bean gum was in very tight supply and up 2c. to 50c. per pound. It was said that short supplies could be expected for some time. Karaya continued steady and tragacanth prices were unchanged although material was scarce and was expected to continue so for the next six months.

Cycloserine Patent Given On Fermentation to Pfizer

A patent on the new antibiotic, cycloserine, and a method for making it by fermentation techniques has been granted to Chas. Pfizer & Co., Brooklyn, N. Y.

Cycloserine has been found to be effective in treating certain types of tuberculosis, certain chronic urinary tract infections and a number of other diseases.

In settlement of an interference before the Patent Office prior to the issuance of the patent, Pfizer licensed Merck and Co., Rahway, N. J., and Commercial Solvents Corporation, New York, to manufacture, use and sell cycloserine.

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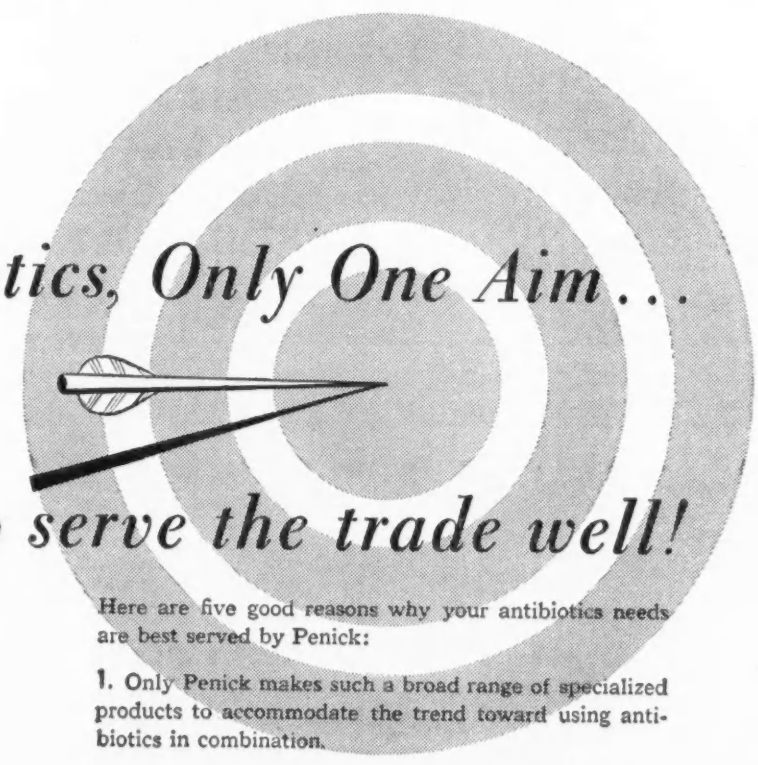

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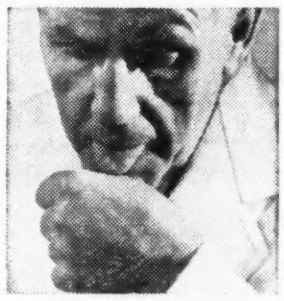

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Cosmetic Chemists Hear Varied Papers

—*Continued from page 7*

in the breakage of glass has been more accurately established and means have been developed to reduce their effectiveness.

Very thin coatings of various materials have been applied to glass surfaces to preserve them from damage. Sulfur, various waxes, silicones and polyethylene have been used and their relative advantages and disadvantages have been determined. Impact, internal pressure and thermal shock tests made before and after simulated service tests have been used to establish the degree of protection offered by the coatings.

The resistance of glass to chemical attack has also been studied in more detail recently. The effects of various products on chemical durability are bettern known and chemical treatments are available which increase the resistance of glass to chemical attack.

Although there have not been many new developments in the field of colored glasses, colored plastic coatings on glass have given a much greater range of color possibilities. Considerable interest in protection of products against ultraviolet radiation has led to several new methods of protection, as well as a more thorough knowledge of the limits of the older methods.

Progress in container design and improvements in glass handling have made possible the production of lighter-weight containers. Correct container design has also become more important in the growing field of aerosol bottles.

*Mr. Prindle is with Continental Can Company, Hazel-Atlas Glass Division, Wheeling, W. Va.

Chemical Applications for Ultrasonic Waves

Ernest B. Yeager*

Ultrasonic waves are capable of producing both chemical and physical effects of interest to the chemist. The majority of the applications for ultrasonic waves in chemistry involve the liquid state. Ultrasonically produced cavitation is the agency for most of the effects in liquids. Typical of the sonochemical changes produced through cavitation mechanisms are the formation of hydrogen peroxide in water, the decomposition of simple organic compounds, the degradation of polymers, and ultrasonically induced polymerization. For the most part, these chemical effects are only of laboratory interest because of the poor yields. The promise for ultrasonics in industrial chemistry lies in the physical effects and their applications to processing. These include: (1) the production of colloidal suspensions in liquids, (2) the degassing of liquids, (3) the increase of heat transfer and mass transport in gases and liquids, and (4) the production of the crystallization of various compounds. Many of the above applications are dependent on the sonically induced cavitation.

Various applications will be discussed in terms of the availability of equipment, the mechanisms for the effects, and feasibility.

*Mr. Yeager is with Western Reserve University, Cleveland, Ohio.

Cosmetic Knowledge Through Instrumental Technics

Everett G. McDonough, Donald A. M. Mackay, Murray Berdick*

Instruments are developed for the convenience of man. They are designed to give him information more conveniently and more accurately than he could get the same results by hand. An instrument is a measuring device, and can give information on three levels:

First, it can give information on bulk properties; secondly, on molecular properties; and thirdly, on atomic properties. Most instruments fall into one of these three categories.

The new physicochemical technics, by filling in gaps in our present knowledge, can be used to solve problems and guide research. Unless one is aware of all the developments of the chemical field, here will be serious time lags before they are generally applied in the cosmetic field. It is very important to be receptive to ideas from apparently unrelated fields of scientific endeavor.

The cosmetic field traditionally, because of its dependence upon subjective terms, has been very difficult for the scientist. Only comparatively recently has he been getting the tools he needs for the job.

Apart from uses in analysis, the new instrumental technics are very helpful in determining the effects of cosmetics upon hair, skin and teeth. Data are required to show functioning of processes, or the absence of undesirable effects, or the creation of desirable effects.

An instrument is designed to fill a gap in knowledge. The instrument for a given application is chosen depending on the type of knowledge that is needed to solve a given problem. The area where we need the knowledge governs to design of the instrument, rather than the instrument's governing the field of application.

*The authors' are with Evans Research & Development Corporation, New York.

Gas Chromatographic Analysis of Aersol Products

M. J. Root and M. J. Maury*

The analysis of the liquified gases and solvents present in "aerosol" products offers unusual difficulties when approached by conventional procedures. Although the fluorinated hydrocarbon mixtures have been commonly analyzed by a number of methods including mass spectrometry, infrared spectrophotometry, liquid density measurements and vapor pressure measurements, the presence of other volatile

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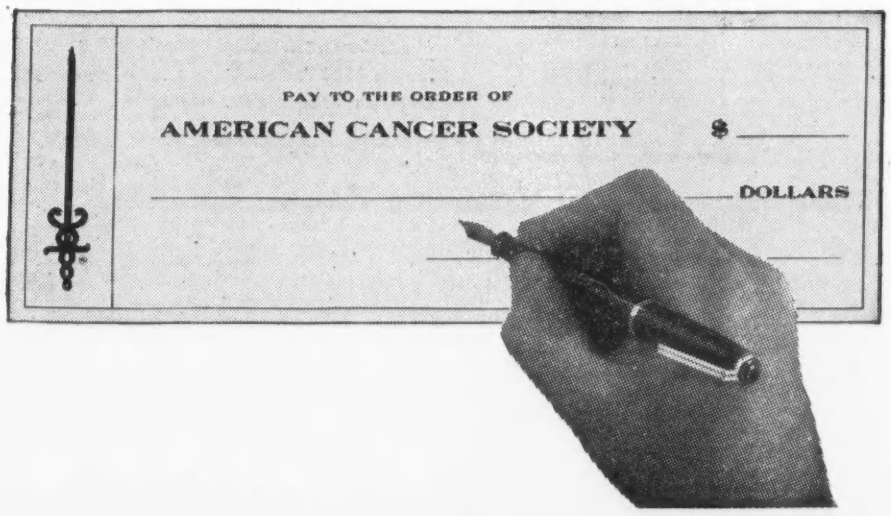

MIDWEST SALES MANAGER: John Peterson, appointed midwestern sales manager, with offices in Chicago, by the polymer chemicals division of W. R. Grace & Co., New York.

components makes such procedures of little value.

Gas-liquid partition chromatography provides an easy, rapid and particularly suited technic for the analysis of the mixtures of liquified gases and low boiling liquids that are found in "aerosol" products. This method, first used by James and Martin in 1951 for analysis of fatty acids, can be used in many ways in the "aerosol" industry:

1. Analysis of propellent mixtures, both the chloro-fluorinated hydrocarbons and the hydrocarbons.
2. Quality control of "aerosol" products.
3. Analysis of both liquid and gaseous phases of "aerosol" products.
4. Determination of air in liquid and gaseous phases.
5. Determination of trace amounts of propellents in the atmosphere.

The essential components of gas-liquid partition chromatography instruments are the following:

1. Carrier Gas.
2. Flow Controller.
3. Sample Inlet.
   Gas.
   Liquid.
4. Chromatographic Column.
   a. Solid Phase (Carrier).
   b. Liquid Phase.
5. Detector.
6. Recorder.

Special technics must be developed for the introduction of the "aerosol" sample. Such samples can be introduced into the column as either a liquid or a gas. The liquid sample required is only from .005 to .05 cc. and the gas sample is from 1 to 25 cc. The sample must pass through the chromatographic column as a gas.

*The authors are with G. Barr & Co., Chicago.

The Electron Microscope—A Tool for the Study of Hair

W. L. Courchene*

Although the electron microscope has been in use for a number of years, it has seldom been applied to the study of human hair. It represents a much needed addition to the technics of light microscopy and x-rays since it bridges the large gap in magnification between these two methods. Three basic sample preparation technics of replication, ultrathin sectioning, and degradation are described and the kinds of problems to which these technics may be applied are discussed. Several electron micrographs are shown to illustrate what can be observed when these three technics are applied to human hair.

*Mr. Courchene is with the research division of Procter & Gamble Company, Cincinnati, Ohio.

The Interference of Nonionic Emulsifiers With Preservatives, III

M. G. deNavarre and Harold E. Bailey*

Previous publications by the authors have established the interference of certain nonionic emulsifiers with some common preservatives.

The present report covers the various factors tested to determine the specificity of the interference. It includes a very comprehensive list of nonionics as well as preservatives. Among the preservatives tried are the p-hydroxybenzoates; usnic, sorbic, benzoic and dehydracetic acids; several antibiotics and new potential preservatives.

*The authors are with Cosmetic Laboratories, Detroit, Mich.

Gas Partition Chromatography. Application to Essential Oils and Other Volatile Materials.

C. L. Teitelbaum*

The new technic of gas chromatography has great potential for routine analysis and control as well as research on essential oils, aromatic chemicals, and other volatile materials. There are basically two ways that this tool can be used. In one, the recording or "chromatogram" can be used to give a qualitative and quantitative analysis of the individual components or a qualitative identification of a complex mixture. As examples of this use, there are shown purity determinations of aromatic chemicals and analyses of simple mixtures. Essential oils can be characterized as to type of oil, origin of production and adulteration.

The second way to use this technic is as an isolation tool for components of complex mixtures. In this use, the chromatogram serves largely as a guide to operation of the sample-collection system, and such technics as infrared spectroscopy are used to identify the isolates. For such materials as essential oils, gas chromatography must be used in conjunction with other separation technics in order to produce isolates sufficiently pure for identification. Some preliminary work on the application of this tool to the question of the identity of citronellol and rhodinal is presented.

A possible future development of great interest is the development of gas chromatography as a method for the commercial production of pure chemicals.

*The author is with Battelle Research Institute's chemical research unit, Columbus, Ohio.

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ALKYLPOLYETHYLENE GLYCOL—20 dms, Inchemtex Inc, Antwerp
ALOE—22 cs, S B Penick & Co, Curacao
25 cs, Selma Mercantile Corp, Curacao
ALUMINUM HYDROXIDE—27 cs, Vandergrift Forwarding Co, London
AMMONIUM CARBONATE—10 dms, Glasgow
30 cs, Glasgow
AMYRIS OIL—3 dms, Port Au Prince
ANILINE DYES—13 dms, Sandoz Chemical Works, Havre
10 dms, A Hoffmann & Co, Rotterdam
56 dms, Geigy Chemical Corp, Bremerhaven
8 dms, Antwerp
ANISE SEED—200 bgs, Alicante
ANNATTO SEED—109 bgs, G P Perez, Progreso
ANTIMONY REGULUS—100 cs, Antwerp
APRICOT KERNELS—150 bgs, Barter Co of N Y, Istanbul
ARABIC GUM—2,810 bgs, National City Bank, Port Sudan
101 bgs, Chase Manhattan Bank, Port Sudan
152 bgs, American Trust Co, Port Sudan
90 bgs, Brown Bros, Port Sudan
250 bgs, Irving Trust Co, Port Sudan
600 bgs, Bankers Trust Co, Port Sudan
782 bgs, Bank of N Y, Port Sudan
1,500 bgs, Port Sudan
ARSENIC, WHITE—131 bbls, American Smelting & Refining Co, Tampico
ASBESTOS FIBER—201 bgs, Mombasa
ASCORBIC ACID—10 cs, Parke, Davis & Co, Sydney
BABASSU NUTS—3 bgs, Anderson Clayton & Co, Fortaleza
BARBASCO ROOT—71 bls, Chemical Bank, Callao
100 bls, E R Squibb & Sons, Belem-Para
BATU GUM—257 bgs, Internatio Rotterdam, Surabaya
BEEF EXTRACT—175 cs, Armour & Co, Montevideo
100 cs, Cap Sales Corp, Buenos Aires
BEESWAX—50 pkgs, Grace National Bank, Lisbon
78 bgs, H H Pike & Co, Tampico
22 bgs, Frank B Ross, Tampico
47 bgs, Irving Trust Co, Havana
50 bgs, H H Pike & Co, Havana
11 bgs, General Import Distributors, Havana
272 bgs, S Zeitlins Sons, Santos
BERGAMOT OIL—6 cs, Dodge & Olcott, Messina
20 hf cs, Citrus & Allied Essential Oils Co, Messina
4 hf cs, Antoine Chiris, Messina
80 qu. cs, Fritzsche Bros, Messina
16 hf cs, Tombarel Products Corp, Messina
40 hf cs, Noville Essential Oil Co, Messina
20 hf cs, Messina
BILE, OX, EXTRACT—2 dms, Chas L Huisking & Co, London
BONE—217 bgs, A M Goldstein, Buenos Aires
BONEMEAL—10 dms, D F Young, Antwerp
BUTTONLAC—50 bgs, Gillespie Rogers Pyatt, Calcutta
CAMPHOR OIL—30 dms, Lo Curto & Funk, Yokohama
CAMPHORIC ACID—3 kgs, Polychemical International Corp, Middlesbrough
CANDELILLA WAX—438 bgs, Tampico
CARAWAY OIL—3 dms, Rotterdam
SEED—125 bgs, Levy & Levis Co, Rotterdam
100 bgs, R L Friedler, Rotterdam
200 bgs, M J Golombeck, Rotterdam
650 bgs, Rotterdam
CARNAUBA WAX—463 bgs, National City Bank, Parnahiba
138 bgs, Bank of London & S A, Parnahiba
25 bgs, Empire Trust Co, Parnahiba
113 bgs, Balfour Guthrie, Parnahiba
55 bgs, Mercantile Metal & Ore Corp, Fortaleza
168 bgs, National City Bank, Foraleza
112 bgs, Frank B Ross, Fortaleza
222 bgs, M Argueso & Co, Fortaleza
41 bgs, Cornelius Wax Refining, Natal
68 bgs, Mercantile Metal & Ore Corp, Natal
68 bgs, Balfour Guthrie, Natal
312 bgs, Bankers Trust Co, Areia Branca
143 bgs, Cornelius Wax Refining, Fortaleza
11 bgs, Chemical Bank, Fortaleza
156 bgs, Fortaleza
CASEIN—1,000 bgs, F A Close & Co, Montevideo
500 bgs, P A Dunkel, Buenos Aires
1,800 bgs, Borden Co, Buenos Aires
500 bgs, Eugenio Lang, Buenos Aires
700 bgs, F H Paul & Stein Bros, Buenos Aires
2,400 bgs, Tupman Thurlow, Buenos Aires
1,000 bgs, Royal Bank of Canada, Buenos Aires
1,026 bgs, A J Mills & Co, Wellington
500 bgs, Tupman Thurlow, Bordeaux
93 bgs, A J Mills & Co, Napier
CASSIA—462 bls, J W Phyfe, Rotterdam
96 bls, A G Dunn, Rotterdam
34 bls, Karl H Landes & E Balint, Rotterdam
2,510 bls, Rotterdam
CASTOR BEANS—1,667 bgs, Baker Castor Oil Co, Salvador
866 bgs, Spencer Kellogg, Salvador
1,693 bgs, Spencer Kellogg, Natal
OIL—362 tons, Wallace & Tiernan, Bombay
394 tons, Baker Castor Oil Co, Bombay
250 tons, Wallace & Tierenon, Fortaleza
571 tons, Spencer Kellogg, Hull
CELERY SEED—174 bgs, Mincing Trading Corp, Bombay
53 bgs, Louis Furth, Bombay
86 bgs, H T French, Bombay
87 bgs, Otto Gerdau, Bombay
CHESTNUT EXTRACT—2,500 bgs, Barkey Importing Co, Genoa
CHINA CLAY—896 bgs, English China Clay Sales Corp, Avonmouth
CHOLIC ACID—1 dms, Van Gelder Fanto Corp, Buenos Aires
CHROME GREEN—100 bgs, Naftone Inc, Hamburg
CINNAMON QUILLS—50 bls, Shippers Produce Corp, Colombo
CITRONELLA OIL—25 dms, Consumers Import Co, Keelung
10 dms, Van Ameringen Haebler, Keelung
25 dms, Givaudan Corp, Keelung
50 dms, Lo Curto & Funk, Keelung
COALTAR DYES—68 dms, Hensel Bruckmann & Lorbacher, Rotterdam
10 dms, Orlex Dyes & Chemical Corp, Rotterdam
29 dms, C A Haynes, Rotterdam
15 dms, Nova Chemical Corp, Rotterdam
COCONUT OIL—541 tons, Pacific Vegetable Oil Corp, Manila
300 tons, American Trust Co, Cebu
684 tons, American Trust Co, Zamboanga
352 tons, Manila
COD OIL—100 dms, Nopco Chemical Corp, St Johns
CODLIVER OIL—100 dms, Peder Devold Oil Co, Reykjavik
105 dms, Arista Oil Products Co, Reykjavik
COPAL GUM—250 bgs, S Winterbourne & Co, Matadi
84 bgs, Gillespie Rogers Pyatt, Matadi
62 bgs, Internatio Rotterdam, Manila
CORN STARCH—650 bgs, Rotterdam
m-CRESOL—50 dms, D C Andrews, Glasgow
CRESYLIC ACID—29 tons, H A Gogarty, London
CUPROUS OXIDE, RED—10 dms, Hamburg
CUTTLEFISH BONE—50 cs, S B Penick & Co, Kobe
100 cs, Wagner Bros, Kobe
DAMMAR GUM—20 cs, Gillespie Rogers Pyatt, Bangkok
80 cs, Archer Daniels Midland Co, Bangkok
70 bgs, Singapore
DEXTRIN—90 bgs, Bestick Adhesives, Rotterdam
300 bgs, Paisley Products, Rotterdam
285 bgs, Chase Manhattan Bank, Rotterdam
DICALCIUM PHOSPHATE—2,364 bgs, Wessel Duval & Co, Antwerp
FERRIC FLUORIDE—1 cs, Bios Lab, London
FISHLIVER OIL—5 dms, Chase Manhattan Bank, Yokohama
1 dm, Interocean Chemical & Minerals Corp, Yokohama
14 dms, J D Smith Interocean, Yokohama
7 dms, Manufacturers Trust Co, Yokohama
19 dms, Yokohama
FISHSCALE EXTRACT—30 cans, Mearl Co, Rotterdam
FUEL OIL—178,671 bbls, Esso Export Corp, Las Piedras
214,711 bbls, Esso Standard Oil Co, Las Piedras
460,864 bbls, Esso Standard Oil Co, Aruba
93,332 bbls, Metropolitan Petroleum Corp, Aruba
68,592 bbls, American Oil Co, San Lorenzo
10,000 bbls, Asiatic Petroleum Corp, Curacao
GALL—3 dms, F J Benkart, Vera Cruz
OX—8 bbls, Van Gelder Fanto Corp, Havana
3 dms, Van Gelder Fanto Corp, Hamburg
SHEEP—2 dms, Melbourne
GALLNUTS—871 bgs, Chase Manhattan Bank, Izmir
193 bgs, Irving Trust Co, Izmir
188 bgs, Meer Corp, Beirut
99 bgs, Zinsser & Co, Beirut
GELATIN—34 dms, Hensel Bruckman & Lorbacher, Rotterdam
50 bgs, T M Duche & Sons, Rotterdam
300 bgs, Transatlantic Animal By Products Corp, Rotterdam
100 bgs, T M Duche & Sons, Antwerp
400 bgs, Coignet Chemical Co, Antwerp
21 cs, Coignet Chemical Co, Antwerp
72 bbls, Coignet Chemical Co, Antwerp
20 bls, Coignet Chemical Co, Antwerp
650 bgs, T M Duche & Sons, Havre
GERANIUM OIL—17 dms, Ufinindo International Corp, Durban
GLYCERINE—82 dms, R P Casado, Havana
317 dms, San Jose
GRAPHITE—500 bgs, Asbury Graphite Mills, Hong Kong
500 bgs, C Pettinos, Colombo
672 bgs, Mombasa
GUANIDINE NITRATE—300 dms, Terra Chemicals Inc, Hamburg
GUAR GUM—150 bgs, Heemsoth Kerner, Rotterdam
GYPSUM—15,819 tons, National Gypsum Co, Hallfax
IODINE, CRUDE—30 kgs, Kinoshita Co, Yokohama
352 kgs, Antony Gibbs, Tocopilla
IPECAC ROOT—9 bgs, Meer Corp, Cristobal
1 bg, Wessel Duval & Co, Cristobal
10 bgs, Wessel Duval & Co, Cartagena
IRON OXIDE—224 bgs, Landers Segal Color Co, London
JALAP ROOT—12 bgs, Vera Cruz
KARAYA GUM—67 bgs, Colony Import & Export Corp, Bombay
KAURI GUM—122 bgs, S Winterbourne & Co, Auckland
LEMON OIL—120 hf cs, Ungerer & Co, Messina
54 dms, Lo Curto & Funk, Vera Cruz
13 dms, George Uhe Co, Vera Cruz
10 dms, George Lueders & Co, Vera Cruz
6 dms, W F Mahneke, Vera Cruz
2 dms, Irving Trust Co, Vera Cruz
6 dms, Chemical Bank, Vera Cruz
1 dm, Vera Cruz
LEMONGRASS OIL—12 dms, Givaudan Corp, Cochin
35 dms, Van Ameringen Haebler, Cochin
12 dms, Verona Chemical Co, Cochin
29 dms, Wessel Duval & Co, Cochin
25 dms, Norda Essential Oil & Chemical Co, Puerto Barrios
LIME OIL—1 dm, Polak & Schwartz, Port Au Prince
1 dm, Florasynth Lab, Port Au Prince
1 dm, Fritzsche Bros, Vera Cruz
LINALOE OIL—3 dms, Vera Cruz
LITHARGE—500 dms, Eagle Picher Co, Tampico
LIVERMEAL—255 bgs, Wesson Duval & Co, Napier
1,120 bgs, Wessel Duval & Co, Timaru
LOCUST BEAN—500 bgs, Hanover Bank, Limassol
640 bgs, Limassol
520 cs, Limassol
GUM—100 bgs, Heemsoth Kerner, Rotterdam
100 bgs, T M Duche & Sons, Rotterdam
100 bgs, Wm M Allison & Co, Rotterdam
100 bgs, Colony Import & Export Corp, Genoa
908 bgs, Stein Hall & Co, Genoa
580 bgs, Morningstar Nicol, Portimao
200 bgs, T M Duche & Sons, Genoa
250 bgs, Catania
MACE—48 cs, A G Dunn, Hamburg
14 cs, Internatio Rotterdam, Rotterdam
MARJORAM LEAVES—63 bls, Wm E Martin & Sons, Marseille
65 bls, M J Golombeck, Marseille
107 bls, Louis Furth, Marseille
MENUKELIVER OIL—10 dms, Chase Manhattan Bank, Yokohama
MERCURY—75 flks, Lo Curto & Funk, Tampico
40 flks, Silvey Shipping Co, Tampico
29 flks, L H Keller & Co, Tampico
40 flks, Lemtex Metal & Chemical Corp, Vera Cruz
200 flks, Vera Cruz
MOLASSES—550 tons, W R Grace & Co, Salaverry
MONTAN WAX—33 bgs, P H Petry, Rotterdam
22 bgs, Cornelius Wax Refining, Rotterdam
110 bgs, Rotterdam
MUSTARD SEED—125 bgs, Transit Export & Import Co, London
200 bgs, R T French, Copenhagen
MYROBALANS—1,454 bgs, Barkey Importing Co, Bombay
NAPHTHALENE—400 bgs, American Cyanamid Co, Hull
2,453 bgs, American Cyanamid Co, Middlesbrough
NUTMEG—149 bgs, Kellys America Ltd, London
OLIBANUM GUM—71 bgs, Ultramar Drug Division, Cristobal
OLIVE OL—80 dms, Uddo & Taormina Co, Haifa
50 dms, Unaue & Sons, Buenos Aires
100 dms, Leghorn Trading Co, Buenos Aires
OPOPANAX GUM—30 bgs, George Lueders & Co, Aden
ORANGE PEEL—175 bgs, Cap Haitien
PALM OIL—200 tons, Procter & Gamble Co, Matadi
PALMKERNEL OIL—49 dms, B M T Commodity Corp, Rotterdam
299 tons, Balfour Guthrie, Matadi
200 tons, Matadi
PALO SANTO OIL—40 cs, Wessel Duval & Co, Buenos Aires
PAPAIN—14 cs, Dar es Salaam
PAPRIKA—184 bgs, M J Golombeck, Valpraiso
300 bgs, R F Downing, Alicante
350 bgs, A A Savia, Alicante
1,825 bgs, Alicante
PEATMOSS—500 bls, Marine Midland Trust Co, Bremen
250 bls, Premier Peatmoss Corp, Bremen
250 bls, Bruco Peatmoss Corp, Bremen
PECTIN—50 kgs, T M Duche & Sons, Copenhagen
PEPPER, BLACK—60 bgs, Borneo Sumatra Trading Co, Singapore
240 bgs, Calvert Vavasseur, Cochin
1,000 bgs, National City Bank, Belem-Para
RED—66 bgs, Halford Lewis Co, Kobe
PERU BALSAM—5 dms, S B Penick & Co, Acajutla
2 dms, Polak Frutal Works, La Libertad
PETITGRAIN OIL—11 dms, Wessel Duval & Co, Buenos Aires
PETROLEUM, CRUDE—150,000 bbls, Socony Mobil Oil Co, Puerto La Cruz
464,000 bbls, Esso Standard Oil Co, Puerto La Cruz
105,897 bbls, Hess Inc, Bajo Grande
111,802 bbls, California Tankers Co, Puerto La Cruz
128,755 bbls, Esso Standard Oil Co, Las Piedras
208,967 bbls, Esso Standard Oil Co, La Salina
25,968 tons, Gulf Oil Corp, Cabimas
a-PICOLINE—134 dms, Rohner Gehrig, Hull
POLLACKLIVER OIL—50 dms, National City Bank, Yokohama
20 dms, Mitsubishi International Corp, Yokohama
25 dms, Interocean Chemical & Minerals Corp, Yokohama
78 dms, Yokohama
POLYVINYL ACETATE RESIN—220 cs, Colloids Inc, Kobe
ALKYLETHER—18 dms, Arno Adhesive Tapes, Bremen
POPPY SEED—150 bgs, Levy & Levis Co, Rotterdam
100 bgs, P H Petry, Copenhagen
900 bgs, Rotterdam
357 bgs, Istanbul
POTASSIUM FERROCYANIDE—500 bgs, Haras Co, Rotterdam
SILICATE—907 bgs, Sylvania Electric Products, Rotterdam
10 bls, Rotterdam
POTATO STARCH—88 bgs, Rotterdam
PSYLLIUMSEED HUSKS—233 bgs, Prentiss Drug & Chemical Co, Bombay
PYRETHRUM EXTRACT—50 dms, National City Bank, Mombasa
60 dms, Mombasa
PYROGALLIC ACID—5 cs, Eastman Kodak Co, London
QUEBRACHO EXTRACT—4,374 bgs, River Plate Corp, Buenos Aires
4,900 bgs, American Tanners Ltd, Buenos Aires
2,187 bgs, Bankers Trust Co, Buenos Aires
1,029 bgs, H Elkan & Co, Buenos Aires
1,028 bgs, Barkey Importing Co, Buenos Aires
RADIUM ELEMENT—1 cs, Antwerp
RAUWOLFIA ROOT—1,201 bgs, Ciba Pharmaceutical Products, Matadi
RED LEAD—475 bgs, Vera Cruz
RUTILE SAND—2,100 bgs, International Titanium Corp, Brisbane
RUTIN—19 dms, National City Bank, Sydney
SAGE OIL—5 dms, P H Petry, London
SANDALWOOD—260 bgs, George Lueders & Co, Madras
OIL—7 cs, Van Ameringen Haebler, Calcutta
SEEDLAC—1,300 bgs, Wm Zinsser & Co, Calcutta
250 bgs, Gillespie Rogers Pyatt, Calcutta
250 bgs, C H Timm, Calcutta
250 bgs, Ludwig Mueller, Calcutta
250 bgs, Wah Chang Corp, Bangkok
SENNA CONCENTRATE—10 cs, Meadows Wye, London
LEAVES—39 bls, Irving Trust Co, Port Sudan
12 bls, Max Van Pels, Colombo
SHARKLIVER OIL—50 dms, Interocean Chemical & Minerals Corp, Yokohama
SHELLAC—27 bgs, F H Paul & Stein Bros, Hamburg
40 dms, F H Paul & Stein Bros, Rotterdam
27 bgs, F H Paul & Stein Bros, Rotterdam
200 bgs, Gillespie Rogers Pyatt, Calcutta
150 bgs, Mac Lac Co, Calcutta
100 bgs, Haeuser Shellac Co, Calcutta
100 bgs, Wm Zinsser & Co, Calcutta
SODIUM ALGINATE—15 dms, T M Duche & Sons, Glasgow
FERROCYANIDE—448 bgs, Antwerp
PHOSPHATE—100 bbls, F L Kraemer, Rotterdam
SILICOFLUORIDE—334 bgs, Baird Chemical Corp, Kobe
SPARTEINE—1 cs, S B Penick & Co, Havre
STARCH—1,000 bgs, Morningstar Nicol, Rotterdam
SUMAC EXTRACT—30 cks, J E Bernard, Glasgow
TALC—250 bgs, L A Salomon & Bro, Marseille
TAPIOCA FLOUR—7,138 bgs, Stein Hall & Co, Bangkok
665 bgs, American Key Products, Bangkok
TARTARIC ACID—113 dms, Royal Bank of Canada, Rotterdam
1,320 bbls, Antwerp
THYME LEAVES—75 bls, Seek & Kade, Marseille
53 bls, Louis Furth, Marseille
97 bgs, Alicante
TUNG OIL—3 cs, J Corbett & Co, Antwerp
285 tons, Buenos Aires
ULTRAMARINE BLUE—60 bgs, Whittaker Clark & Daniels, Hull
ROSE—10 bgs, Whittaker Clark & Daniels, Hull
VIOLET—10 bgs, Whittaker Clark & Daniels, Hull
UMBER—400 bgs, Chase Manhattan Bank, Larnaca
UREA—907 bgs, Nylos Trading Co, Genoa
SYNTHETIC—4,000 bgs, Chemical Manufacturing Co, Middlesbrough
UREA-FORMALDEHYDE RESIN—2 kgs, American Cyanamid Co, London
VETIVER OIL—1 dm, Van Ameringen Haebler, Port Au Prince
3 dms, Port Au Prince
WATTLE BARK—2,166 bgs, Tanga
WHITING—1,600 bgs, Pluess Staufer, Antwerp
WOOL GREASE—23 dms, Fanning Chemical Corp, Nagoya
35 dms, N I Malmstrom, Rotterdam
11 dms, Eelsingh & Lugtheid, Rotterdam
50 dms, Antwerp
ZIRCON SAND—2,400 bgs, International Titanium Corp, Brisbane

Los Angeles

CARAWAY SEED—75 bgs, Hismoco American Co, Rotterdam
COPRA—2,720 tons, Paul X Smith Corp, Cebu
3,000 tons, American Trust Co, Tabaco
2,240 bgs, Pacific Vegetable Oil Corp, Manila
2,000 tons, American Trust Co, Tacloban
500 tons, American Trust Co, Dumaguete
CREOSOTE OIL—1,408 tons, Bernuth Lembecke Co, Kobe
FISHLIVER OIL—50 dms, Universal Foreign Service Co, Yokohama
MOLASSES—1,738 tons, National Molasses Co, Manzanillo
NICOTIN ACID—25 kegs, London
PEATMOSS—500 bls, Nootbaar & Co, Bremen
SESAMESEED OIL—100 dms, Amato Agency Inc, Rotterdam
SODIUM BICARBONATE—638 bgs, River Plate Corp, Buenos Aires
275 bgs, C M C Chemical Corp, Liverpool
CYANIDE—764 dms, C M C Chemicals Inc, Liverpool
NITRATE—10,766 bgs, Guaranty Trust Co, Tocopilla
TAPIOCA FLOUR—2,000 bgs, Internatio Rotterdam, Bangkok
3,500 bgs, Stein Hall & Co, Bangkok
UREA—500 bgs, C M C Chemicals Inc, Liverpool
WHITING—2,000 bgs, Pluess Staufer, Antwerp
ZINC OXIDE—1,200 bgs, Frank P Dow Co, Hull

Philadelphia

AMMONIUM CHLORIDE—999 bgs, Chemical Manufacturing Co, Liverpool
ASBESTOS FIBER—3,304 bgs, Lourenco Marques
BEEF EXTRACT—129 cs, Tupman Thurlow, Buenos Aires
BONE—249 tons, Baugh & Son, Buenos Aires
761 tons, Lavino Shipping Co, Rio de Janeiro
CASEIN—336 bgs, Melbourne
COCONUT OIL—330 tons, Manila
COD OIL—100 dms, Reilly Walton Co, St John
p-CRESOL—30 dms, Shell Chemical Corp, Rotterdam
CRESYLIC ACID—100 dms, Concord Chemical Co, Manchester
MAGNESIUM POWDER—240 bgs, Darlington Co, Liverpool
MENTHOL—125 cs, Vick Chemical Co, Santos
MOLASSES—559,176 bbls, South Western Sugar Co, Fort de France
200,486 bbls, South Western Sugar Co, San Pedro de Macoris
467,615 bbls, South Western Sugar Co, Pointa Pirre
MYROBALANS EXTRACT—600 bgs, Barkey Importing Co, Liverpool
QUEBRACHO EXTRACT—438 bgs, Bankers Trust Co, Buenos Aires
RUTILE SAND—100 bgs, Metal Traders, Brisbane
2,000 bgs, Chas Kurz Co, Brisbane
9,495 bgs, Brisbane
SODIUM BICARBONATE—498 bgs, Chemical Manufacturing Co, Liverpool
VANILLA BEANS—45 cs, Camax Co, Madagascar
ZIRCON SAND—1,000 bgs, Chas Kurz Co, Brisbane
1,976 bgs, Samuels Co, Brisbane

San Francisco

CASEIN—460 bgs, J R Spellacy, Sydney
COPRA—90 tons, Internatio Rotterdam, Cebu
90 tons, Balfour Guthrie, Cebu
100 tons, Pacific Vegetable Oil Co, Manila
FORMIC ACID—22 cs, Bremen
KIESERITE—800 bgs, Mattoon & Co, Bremen
NICKEL CHLORIDE—4 cs, London
PETROLEUM, CRUDE—55,594 bbls, Tidewater Oil Co, Bander Mashur
55,601 bbls, Pacific Western Iran Inc, Bander Mashur
16,257 tons, Standard Oil Co, Vancouver
SESAME SEED—300 bgs, H M Newhall & Co, Corinto
490 bgs, B C Ireland, Corinto
VITAMIN C—10 cs, Upjohn Co, Sydney

Socony Plans Construction

—*Continued from page 7*

alumina catalyst impregnated with platinum. A construction contract for the unit has been awarded to J. F. Pritchard & Co., Kansas City, Mo.

Two new units are to be built at the Casper, Wyo., Mobilgas refinery. In addition to a 3,000-barrel-a-day catalytic reformer and pretreater, the construction program at Casper includes a catalytic hydrodesulfurization unit for improving the quality of heating oil and other distillate fuels.

This latter unit will have a capacity of 3,250 barrels a day. A contract for construction of both units has been awarded to J. F. Pritchard & Co.

'57 PRIESTLEY MEDALIST: Prof. Farrington Daniels of the University of Wisconsin, international authority on both atomic and solar energy, who has won the Priestley medal of the American Chemical Society for 1957.

Celanese Elects Director, Names Senior Vice-Pres.

Francis S. Baer, chairman of the executive committee of Bankers Trust Company, New York, has been elected a director of Celanese Corporation of America, New York.

In addition, the appointment of George H. Richards, as a senior vice-president has been announced. Mr. Richards, who has been with the company and its affiliates for twenty-five years and is a company director and member of the executive committee, was formerly financial vice-president.

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- DIMETHYLTELLURONIUM DIIODIDE
- 2,6-DIMETHYLTHIANTHRENE
- 2,4-DIMETHYLTHIAZOLE
- DIMETHYL ZINC
- α,α'-DINAPHTHYL
- β,β'-DINAPHTHYL
- 4,4'-DINITRO-1,1'-BINAPHTHYL
- 2,2-DINITROBIPHENYL
- 1,5-DINITRONAPHTHALENE
- 1,8-DINITRONAPHTHALENE
- 1,6-DINITRO-2-NAPHTHOL
- 2,6-DINITROPHENOL
- β-DIOLEIN

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Economics Lab Earmarks $825,000 for Expansion

Economics Laboratory, Inc., St. Paul, Minn., plans to spend $825,000 on expansion. The company plans to apply about $375,000 for purchase and installation of equipment and machinery for its new Chicago plant now under construction.

Some $350,000 will be spent to provide additional plant space and equipment for its plants in California and Lyndhurst, N. J., and $100,000 will be spent to provide machinery and equipment for a company which Economics Laboratory intends to lease in Dallas, Tex.

The company has fined a registration statement with Securities and Exchange Commission seeking registration of 100,000 shares of its $1 par common stock to be offered for public sale.

Net proceeds of the sale will be spent on the planned expansion, as well as on repayment of a loan which it obtained to purchase the Soil-Off Company division of S.O.S. Company, in February, 1956.

Copper in October Rose Over September Supply

The domestic supply of refined copper during October amounted to 157,000 short tons, an increase of 17,000 short tons over the preceding month, but 14,000 short tons under that of October, 1955, the Department of Commerce announced last week.

Receipts of scrap by fabricators in October evidenced a trend comparable to the supply of refined copper, with most of the decrease from a year ago in the brass mills. About 10 percent of the available scrap supply remained in the inventories of scrap dealers and generators and is not included in fabricators' receipts data.

Celanese Chooses

—Continued from page 5

year he became vice-president and general manager of the Celanese textile division, a position held until his most recent assignment. He has been a company director for the past two years.

Mr. Gilbert, who also will continue to serve as secretary of the corporation, joined the Celanese organization in Canada in 1929, working in the secretary's office there for eleven years.

In 1940 he entered the secretary's office of the Celanese organization in New York, shortly thereafter becoming secretary of the corporation, a position he has held continuously since.

Mr. Brooks, who succeeds Mr. Loughlin as general manager of the textile division, joined Celanese in 1955 as textile merchandising manager and became director of textile marketing nine months later. Previously, he had been associated with Springs Mills, Inc., for five and one-half years, the last two years as vice-president and general sales manager. Previously he had been with Deering Milliken & Co., and the former Nashua Manufacturing Company.

Mr. Cochran, who will coordinate planning for the corporation's manufacturing facilities and engineering policies, began his career with Shell Oil Company in maintenance and process engineering at the Company's Houston, Tex., refinery.

His career with Shell was interrupted by service with the air force, after which he returned to the company for an additional six years, first heading industrial engineering and then taking charge of maintenance. In 1951, he joined Celanese as plant engineer at the chemicals plant in Bishop, Tex., also serving as chemical division engineer. Since 1953, Mr. Cochran has been manager of plant operations for the Celanese chemical division.

Peppermint Crop Value

—Continued from page 4

$2,503,000 for the 1955 crop and $2,742,000 as a six-year average.

The increase in the value of the peppermint crop was the result of an increase in the number of acres for harvest and a substantial rise in yield per acre which produced a crop sufficiently large to more than offset a decline in the price of the oil. The acreage for spearmint was smaller than last year, but the yield was sufficiently high to produce a larger outturn and offset a decline in price.

The following table summarizes the 1956 crop by states with comparisons for 1955:—

	Acres for harvest		Production (1,000 lbs.)	
Peppermint:—	1955	1956	1955	1956
Indiana	9.600	12.500	238	462
Michigan	6.800	6.000	129	132
Wisconsin	3.200	2.800	128	101
Washington	11.000	11.000	704	880
Oregon	13.000	14.000	689	840
Total	43.600	46.300	1.938	2.415
Spearmint:—				
Indiana	6.400	6.700	211	255
Michigan	5.400	5.000	157	140
Washington	2.500	3.100	225	304
Total	14.300	14.800	593	699

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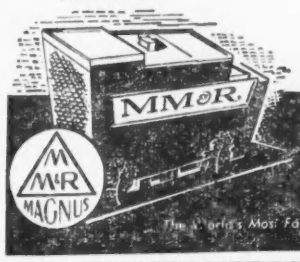

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Essential Oils, Aromatics

Hungarian chamomile oil climbed drastically as a direct result of the political situation in the source country. The current listing of $225 per pound is $35 higher than the previous quote. Price advances were also noted in bergamot oil and pimento leaf. Bergamot, which has been hardening on spot for the last few weeks, climbed 50 cents per pound to $10.50. Pimento leaf oil climbed 10 cents per pound to a $2.85 spot quote. No other price movements were reported. Underlying conditions, according to dealers, were firm with expectations of further advancements in most areas after the first of the year. Patchouli oil continued to show increasing strength and gerainum oil prices, while somewhat irregular, generally appeared to be growing stronger. This was reportedly resultant of the firming position of the Algerian source market. Express lime oil, which moved forward in price two weeks ago, has remained very strong on the spot scene.

The aromatic chemical market showed little movement last week, it was noted. For the most part it has succumbed to the end-of-the-year lull and with the exception of a few replacement items showing strength because of the European and Middle Eastern situation the market has varied little from its position of the past weeks.

The seeds and spices showed spotted movement last week. Ginger and turmeric lost ground slightly, dealers said; chillies and nutmegs held their own, while celeryseed, cassia, cinnamon and cuminseed improved their positions.

A recent report from the European market noted that:

The dominant factor in the essential oil market is the Middle East situation which has again created a buying interest and a number of oils are short on spot (London) with consequently rising prices for the material that remains available. Reports have come in that China has withdrawn offers for shipment of all her production of essential oils but at the time it is not known how long it will be before quotations are made again. Buying has been fairly substantial with anise seed and eucalyptus in good demand and both are firmer in price. A number of offers of Brazilian bois de rose are being received for shipment and these have been taken up at roughly unchanged prices. The citronella oils have gone up, the advance in Formosan being substantial with no sign of any let up. After the decline in geranium prices, there was a complete turnabout and prices have risen sharply. The newcrop lemon oil is late this year and quotations are only now being made which show an advance over old crop oil.

Patchouli oil, which last month reached a low figure recovered and prices are rising. Paraguayan petitgrain is again being offered with quotations a little higher.

Price Trends

Advanced

Oil, chamomile, Hungarian, $35 per lb.
Bergamot, 50c. per lb.
Pimento leaf, 10c. per lb.

Reduced

Vanilla bean, Bourbon, 25c. per lb.
Mexican, whole, 50c. per lb.
cut, 50c. per lb.
Mexican, whole, 50c. per lb.
cut, 50c. per lb.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Dec. 24, 1955
142.31	132.81	137.85	134.24

For Current Prices see Page 9

Essential Oils

Bergamot—This material moved upward once again last week, marking the second advance within two weeks. The first movement, reflecting advances in the Consortium listing at source, brought the price up to $10 per pound. Last week, dealers here, contending that the price advance had been too weak, moved the advance had been too weak, moved the price up another 50c. per pound. The argument offered for the second movement upward was that local houses with cheap material on hand had kept the market from reaching up to its natural level. The present price, they believe is more realistic.

Bois de Rose — This material, after a short period of relative strength, appears to have slipped back into the worn groove of downward movement in which it marked time for such a long period. Recent reports of material coming into the United States from Peruvian ports were followed by a decline in listing, two weeks ago. The weakest period of the market, earlier this year, was marked by large quantities of bois de rose being brought into the country at slashed prices out of Peruvian ports. Initially an effort to unload a portion of the backlog of this oil in Brazil, while still keeping the Brazilian price at a respectable level, the move backfired when such vast quantities came out of the Peruvian ports that the entire market was depressed and continued a steady decline in listing. During the summer months, an organized effort was made to stabilize the market through control of exports. For a time, it appeared as if this move would succeed. Now, however, with the market once more moving downward, it is questionable just what can be done.

Chamomile—Hungarian blue chamomile oil has advanced in price as the result of the current conflict and unrest in the source country. The current listing, $225 per pound, is $35 higher than the previous quote. Expectations for any reversal or easing of the situation for this oil are without any basis, most dealers concede. Even if the political picture does soften, no material should be coming out of Hungary for some time, it was said.

Citronella—This material for the most part continued to remain relatively stable in the spot market last week, dealers here reported. Firming prices of both Ceylon and Formosan (Java-type) material during the past months have been attributed by some to the situation in the Middle East, while others claimed that the market itself has begun to firm.

A recent report on the Formosan material in an industry publication noted that the material developed from one root stock of citronella grass, which a Japanese brought from Java about forty years ago. The production of citronella oil in Formosa reached its highest peak of 327.2 metric tons in 1939 and decreased sharply by the influence of World War II. In 1945 the production of the oil was only 29.1 metric tons and then further decreased to the very low level of 11.5 metric tons during the next year. From 1947 the high international market price of citronella oil so strongly stimulated the cultivation of citronella grass that the production of oil rose remarkably and mounted to its maximum of 2,577 metric tons in 1953.

The amount of production estimated for 1955 and 1956 are about 1,200 metric tons respectively. For these years Formosa supplied more than 60 percent of the world citronella oil production.

Jasmin—A report from English market sources noted that the jasmin crop was over last October and in spite of not being as large as the previous one, it is considered a good crop. The jasmin products, it was noted, have been and still are in good demand and a rather large quantity of them has already been sold. However, the stock of concrete and absolute actually carried is very likely to cover all requirements until the 1957 crop is harvested.

Lavandin—A report from London on this material noted that a large quantity of lavandin has, to date, been sold. However, the price remains steady and no rumor of a rise has been noted, though it is said that the expected step-up in activity after the first of the year might leave its mark in this market. Another factor that might effect the market would be any

Imports Detained at N. Y.

Period Ended Dec. 14

Anise Seed, 200 bags.
Black Pepper (37 lots), 3,526 bags.
Cassia (71 lots), 6,604 bags.
Chestnuts, 200 cases.
Cloves (3 lots), 160 bags.
Coriander Seed (4 lots), 1,400 bags.
Cumin Seed (3 lots), 1,165 bags.
Fennell Seed, 182 bags.
Fenugreek Seed (2 lots), 236 bags.
Laurel Leaves, 156 bales.
Mace, 4 cases.
Nutmegs (9 lots), 840 bags.
Sage (2 lots), 691 bags.

Essential Oils

strong reduction in the stock of lavender oil.

Lavender—English sources noted that in spite of the high price quoted for lavender oils, a large demand has been recorded and a substantial quantity of this year's production has already been absorbed. Therefore, should the demand remain a little active, it would not be surprising, it was said, that the stock available be exhausted in the course of the first months of 1957. It was noted, on the other hand, that lavender concretes and absolute were in good enough supply to cover all requirements until the 1957 crop.

Spike lavender of both French and Spanish origin have continued to show growing strength. Small quantities of French continue available, it was noted and the price hues close to that of the Spanish material. Spanish prices rose recently in its source listing.

Pimento leaf—This market was reported to be advancing on spot last week, dealers here noted. The new listing, $2.85 per pound, is 10c. higher than the previous quote.

Lemongrass—This material appeared to remain at a relatively stable level last week, dealers here reported. The position of the market, one of easement prior to the Suez crisis, has been one of varying strength for the past months, though the earlier progressive softening movement has ceased. As to what will develop remains to be seen. There is no question that a quantity of the material is available at source. Estimates of production earlier this year were high. With the shipping situation what it is at the present time, however, the spot market must depend upon developments in that area.

Aromatic Chemicals

Benzyl Cinnamate—Production of this material during 1955, according to the Bureau of Census, amounted to 6,000 pounds. Sales during 1955 totalled 4,000 pounds evaluated at $12,000. The average unit value for benzyl cinnamate during that period was $3.26 per pound.

Benzyl Propionate—The Bureau of Census report on production of benzyl propionate during 1955, 4,000 pounds as the domestic output figure. Sales for that period stood at 5,000 pounds at a value of $6,000. The average unit price for benzyl propionate during 1955 was $1.22 per pound.

Methyl Cinnamate—Production figures issued by the Bureau of Census on this material were computed at 54,000 pounds for 1955. Sales for the same period amounted to 49,000 pounds at a value of $63,000. The average unit value for methyl cinnamate for 1955 was $1.29 per pound.

Seeds and Spices

Cloves—Shipment prices for this material tended higher last week, dealers here reported. In the absence of any broad demand, prices on spot were firm but unchanged.

Ginger—Continued interest in newcrop Cochin was reportedly a factor in this market last week. Prices remained at previous levels but the market was said to have a good undertone of interest. The first shipments are coming out this month and may be had at a small fraction over January shipment positions. Jamaican is strong and worked higher on spot this week. Other grades were said to be lightly stocked.

Pepper—One dealer reported that persistent spot selling kept prices on spot below the price of material abroad. Singapore prices are two cents higher than spot, while India remains steady at fractions higher. Year end balancing operations are responsible in part for this disparity, one dealer claimed. However, there appears to be no fundamental change in the structure of the world market to question the soundness of present levels for at least the first six months of next year. There is very little willingness, it was noted, to discount spots on forward deliveries in New York.

White pepper prices here also ruled lower than at source. Shipment business was reportedly at a standstill with reserves noted as adequate but not overly large. January arrivals, one report had it, will drop off and the present disparity should make itself felt by February.

A few shipments of new crop Japanese grade red peppers are now reportedly on their way. The market there continued firm, it was said, and very sensitive to variations in demand. Domestic production was said to have been absorbed with no material of any consequence remaining in New York. Some Gondares are available afloat, due in January. New crop Nigerians are expensive.

Vanilla Beans—Declines were noted in this market last week, dealers here reported. The current listing of $7 per pound for Bourbon beans, $7.50 for whole Mexican beans and $7 for cut Mexican beans involve declines of 25c., 50c., and 50c., respectively. The price drops are attributed by local dealers to newcrop influences. The information is based on reports from Madagascar. However, it is also noted that the market has about reached a turning point. Earlier estimates of the Mexican newcrop noted that the 300,000 pound crop reported earlier may not materialize. Late information has it that the crop will be nearer 250,000 pounds. It was also noted that about half the new Bourbon crop will arrive here in April has already been sold to buyers on spot and curers are reluctant to sell additional lots, especially at current quotations. Producers in Mexico, it was noted, will not be able to meet the low prices that prevail here and in Madagascar. This information is based on the high prices paid by curers for new crop green beans in that source country.

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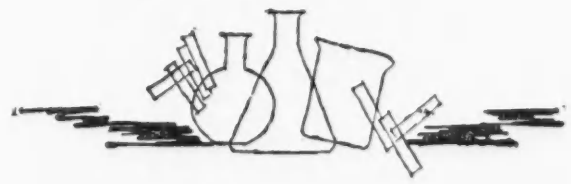
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Obituaries

Dr. E. L. DeGolyer

Dr. E. L. DeGolyer, one of the foremost authorities in the world on petroleum geology, died December 14 in Dallas, Tex. He was seventy years old.

Dr. DeGolyer, internationally known for his work in the field of scientific prospecting for oil, was a member of several important military advisory commissions during World War II.

During that time he worked extensively on several projects focused on the development of Middle-Eastern petroleum resources. He was the first scientist to predict the importance of oil reserves in the Persian Gulf area.

Dr. DeGolyer was at one time a member of the United States Advisory Commission on Atomic Raw Materials.

Charles Errol Landers

Charles Errol Landers, retired controller of Tidewater Oil Company, New York, died December 15 in Miami, Fla. He was sixty-seven years old. Mr. Landers had been with Tidewater for thirty years before retiring in 1953.

Eric Gordon Davis, former vice-president and general manager of Titanine, Inc., Union, N. J., died December 17 in Colonia, N. J. He was sixty-six years old.

Erwin Eliel, vice-president and treasurer of Associated Metals & Minerals Corporation, New York, died December 16 in that city. He was forty-five years old.

J. Gordon Hardy, retired mining engineer and former president of Falconbridge Nickel Mines, Ltd., Toronto, Canada, died December 14 in Redding, Conn. He was eighty-three years old.

Walter Jacobson, a metallurgist with Nassau Smelting & Refining Company, died December 19 in New York. He was fifty-nine years old. Five years ago he received recognition for inventing a method of reclaiming tin and other nonferrous metals from scrap.

W. N. McGillevry, midwestern district sales manager in the automotive refinish-division of Rinshed-Mason Company, Detroit, Mich., died December 14 in Ingleside, Ill. He was fifty-eight years old.

Joseph A. Morris, Philadelphia district sales manager for Spencer Kellogg & Sons, Inc., Buffalo, N. Y., died November 26 in Philadelphia. He was sixty-one years old.

William A. Ross, assistant to the vice-president in charge of sales of St. Joseph Lead Company, New York, died December 18 in Weston, Conn. He was forty-one years old.

Prof. Albert E. White, director of the Engineering Research Institute of the University of Michigan from 1920 to 1953, died December 18 in Ann Harbor, Mich. He was seventy-two years old.

DuPont Finishes Division Announces Staff Changes

Reorganization of the trade, industrial, and automotive refinish sales sections of the finishes division of E. I. duPont de Nemours & Co., Wilmington, Del., has been announced.

Line and staff functions of the sections will be consolidated in Wilmington. At present the regional industry managers for trade, industrial, and refinish sales report to a regional sales manager.

This latter position will be discontinued, and after January 1 the trade, industrial, and refinish sales managers in the regions will report directly to their respective management groups which will be established in Wilmington.

This applies to all of the division's eight sales regions except San Francisco, where the present organization will continue because of the desirability of having resident over-all supervision on the west coast.

George H. Baldwin, Dallas, Tex., regional sales manager, has been appointed manager of the new trade sales organization in Wilmington. Assisting him will be Charles P. Culp as eastern manager and Charles W. Dingle, jr., as western manager.

Mr. Culp is Atlanta regional sales manager and Mr. Dingle is Dallas regional trade sales manager. Donald V. Bauder, now trade sales manager in Wilmington, will become trade sales marketing manager.

In other appointments in the new trade sales organization, William D. Lawson, manager of the finishes sales development laboratory in Philadelphia, will become manager of industrial maintenance sales in Wilmington, and John D. Rode, assistant trade sales manager (staff), will become product manager for industrial maintenance sales.

Harold E. Goldsmith, Chicago regional sales manager, will become manager of the new industrial sales group, with Walter S. Woods, 2nd, as eastern manager and Richard N. Sanger as western manager.

Mr. Woods is now industrial sales manager (staff) in Wilmington, and Mr. Sanger is Cleveland, Ohio, regional sales manager. William P. Fisher, jr., now industrial sales manager (staff) in Wilmington, will become industrial sales marketing and product manager.

George H. Berlin, jr., Kansas City, Mo., regional sales manager, will be manager of the refinish sales organization, assisted by George A. Massih as eastern manager and Robert R. Allen as western manager. Mr. Massih is now Boston regional refinish sales manager and Mr. Allen is refinish sales manager (staff) in Wilmington.

John H. Stutt, Philadelphia regional sales manager, has been appointed staff assistant to the director of sales in Wilmington, and David E. Goldich, Boston regional sales manager, will retire voluntarily in January after 31 years with duPont.

Hanson H. Hodge, Cleveland regional refinish sales manager, will become assistant manager of sales services in Wilmington. Robert R. Atkinson will succeed Mr. Dingle as Dallas regional trade sales manager.

Ernest W. Rowe will succeed Mr. Massih as Boston regional refinish sales manager; and Robert H. Melka will succeed Mr. Hodge as Cleveland regional refinish sales manager. All appointments are effective January 1.

Southwest Chemical

—*Continued from page 5*

which the chemical industry has expanded —an increase of 190 percent.

Employment rose to 63,528 in 1954 from 38,952 in 1947, an increase of 63 percent.

Primary production of nonferrous metals in the southwest, based on copper, zinc and other nonferrous metals, more than tripled between 1947 and 1954.

Most of this expansion was in Texas, which accounted for almost two-thirds of the region's metals production by the end of the period.

Primary aluminum production in the region was a postwar development, the first plant being established in 1950. By 1954, there were four primary aluminum plants and one major alumina plant were located in Louisiana and Texas with annual capacities of over 400,000 tons of aluminum—nearly 30 percent of the national total.

Magnesium is produced from sea water in a plant on the Gulf coast. This facility, a wartime development, accounts for most of the magnesuim produced in the United States and all the commercial production.

Gulf Acquisition

—*Continued from page 5*

among sellers of LP-gas to other producers.

In a statement defending the merger, Gulf said that the effect on the Gulf organization was not to remove a competitor but to add to the Gulf line of products. Less than one percent of Gulf's business was concerned with natural gasoline and liquefied petroleum, and, even, then, only as incidental to its general business, it was stated.

"Gulf's purchase of Warren has had just the opposite effect than that of reducing competition," W. K. Whiteford, president of Gulf said. "It has put Warren in a position to be more strongly competitive with various large, integrated oil companies which are active in the liquefied petroleum gas and natural gasoline fields, and it has enabled Warren's shareholders to diversify and gain greater security for their investment."

Chemical Industry Faces

—*Continued from page 3*

southern portion of Virginia. The 5 percent boost applies to all traffic west of the Mississippi.

The southeastern carriers do not benefit from the increase, but they have their own petition pending with the commission in which they also are asking for an emergency increase of 7 percent. This petition is to be the subject of hearings by the commission January 7.

In addition to the increases within eastern and western territories, the commission also allowed an increase of 5 percent on traffic moving between eastern, western or southeastern territories. The rise in the costs for transporting freight is estimated at about $402,600,000 on an annual basis.

Textile, Leather Chemicals

New business was restricted last week due to approach of the holiday season, but withdrawals of materials against current contracts continued at a good pace. Interest also was quite active for early 1957 requirements. Prices remained on a steady basis for all items. In the chemical group current prices were maintained for next year delivery, except zinc hydrosulfite which was advanced from one half cent for carlots and 2 cents per pound for smaller quantities effective January 1. Firm tone prevailed in sizing materials. Potato starch was unchanged in Maine and discount of one quarter cent was withdrawn for shipments south of Virginia. Discount for shipment from Idaho to eastern points also were reduced from three quarter cents to one half cent per pound, effective January 1. Interest in Brazilian tapioca flour continued to lag due to higher cost than Siamese. Shipments of the latter were firmer and slightly higher. Another advance becomes effective February 1, when ocean rates will be increased 15 percent. Corn starch and dextrin demained steady and unchanged for all grades. Sago flour was quiet, light stocks on spot were maintained at prevailing quotations.

Price Trends

Advanced
None.

Reduced
None.

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Dec. 23, 1955
108.55	108.55	108.55	105.40

For Current Prices see Page 9

January 1 Price Advances

Zinc hydrosulfite, ½c. per lb. carlots. 2c. per lb., l.c.l.

Conditions in the tanning materials market continued steady. Primary markets were unchanged and firm and cost of replacements was expected to increase due to higher ocean freight rates. Consuming inquiry for early next year requirements was fairly active.

Fiber consumption rate on the woolen and worsted systems in October was 17 percent above September and 4 percent above October, 1955, according to the Census Bureau. The weekly average raw wool consumption in October was 9,303,000 pounds (scoured basis) or 16 percent above September and 7 percent higher than September, 1955.

Chemicals

Bichromates—This market remained in a firm position. All grades were well held at prevailing quotations. Inquiry for early 1957 needs was quite active.

Sodium Acetate—Business was quiet, reflecting the holiday season. Prices were without change and steady.

Sodium Hydrosulfite—Conditions in this market continued on a steady basis. Business was reported moderate for delivery after the first of the year.

Sulfonated Oils—Business was reported moderate for prompt requirements. Prices were firm, reflecting the strength of basic oils.

Sizing Materials

Albumin Blood—Prices were unchanged and steady ranging from 65c. to $1 per pound, depending upon quantity. Demand continued quite active for actual needs.

Corn Dextrin—Trading was confined to actual needs. Prices were unchanged and steady for all grades. Gum was quoted at $9.28 per 100 pounds, paper bags, carlots, New York delivery; light canary, $9.02; dark canary, $9.12, and white, $8.86, same basis. Smaller lots were 15c. per 100 pounds higher.

Corn Starch—This market remained unchanged and firm. Business was spotty. Pearl was quoted at $7.27 per 100 pounds, paper bags, carlots, New York, and powder $7.39, same basis. Less carlots were 15c. per 100 pounds higher. Visible corn supply increased 216,000 bushels to 74,535,000 bushels for the week ended December 14, compared with 48,596,000 bushels for the corresponding week last year, it was reported by the Chicago Board of Trade.

The 1956 corn crop was placed at 3,451,292,000 bushels by the Department of Agriculture, compared with 3,229,743,000 bushels in 1955 and 10 year (1945-54) average of 3,084,389,000 bushels. Acreage harvested totaled 75,950,000 acres, against 79,530,000 last year and 10 year (1945-54) average of 83,260,000 acres. Yield per acre was 45.4 bushels, this year, against 40.6 in 1955 and 10 year average of 37.1 bushels.

Egg Albumin—Buying interest lagged, but prices were maintained at current levels. Flake was held at $1.65 to $1.67 per pound, and powder, $1.69 to $1.71, spot, as to quantity. Technical was ranged from $1.08 to $1.10 per pound, same basis.

Potato Starch—While business was confined to actual needs, the market remained firm on the basis of 6¼c. per pound, carlots f.o.b. Maine for shipment to all points. The discount of ¼c. for shipment south of Virginia has been cancelled. Idaho was strong at 6¼c., carlots, mills and shipments to eastern points were higher at 5¾c., carlots, effective January 1, instead of 5½c. Stocks on spot were maintained from 8¼c. to 9¼c. perpound, exwarehouse, as to quantity.

Department of Agriculture reported actual 1956 potato production at 243,238 (100 pounds), compared with 227,049 in 1955 and 10 year (1945-54) average of 226,360. Acreage harvested this year totaled 1,391,000 acres, against 1,414,000 in 1955 and 10 year average of 1,525,000. Yield per acre was indicated at 174.9 bushels against 160.6 in 1955 and 10 year average of 148.8 bushels.

Sago Flour—Trading was reported slow. Deliveries against contracts have been delayed several weeks since the Suez Canal has been closed. Raw flour on spot was unchanged at 7c. to 7¼c. per pound, spot and refined, 8¼c. to 8¾c., as to quantity. Prompt shipments ranged from 5.45c. to 5¾c. per pound, exdock, depending upon grade.

Tapioca Flour—Consumers showed good inquiry for early 1957 requirements. Market was stronger for Siamese. Recent trading in Siamese grades has been heavy for prompt and later requirements. Medium grades were higher at 5.4c. per pound, carlots, exdock, also for grade A at 5¾c. to 5.8c., same basis. Interest in Brazilian flour continued to lag due higher cost than Far Eastern grades. Shipment from Brazil was merely nominal around 10c. per pound, carlots, exdock.

Tanning Materials

Chestnut Extract—This market ruled steady, reflecting higher ocean freight rates. Trading was reported quiet. Solid extract guaranteed 60 percent was quoted at 9⅛c. per pound, carlots, exdock, plus duty, prompt shipment and powdered, 70 percent, 10⅝c., same basis.

Cutch—Production was reported sold ahead and replacements remained firm at 8½c., per pound, carlots, exdock, plus duty.

Mangrove Bark—Market was quiet, but steady for all grades. African bark was quoted at $66 per ton, exdock, prompt shipment; Colombian, $58 per ton, and Ecuadorian, $55, same basis.

Myrobalans—Shipments were firm, reflecting the increase of 15 percent in ocean freight rates effective February 1. Genuine J1 was maintained at $63 to $64 per ton, exdock, prompt shipment; crushed, $79 to $80 per ton and Bombay, $61 to $62, same basis.

Quebracho Extract—Shipments were well held at unchanged quotations. Buying interest was more active, but actual sales were reported spotty for prompt shipment. Solid ordinary guaranteed 63 percent tannin was quoted at 11 21/32c. per pound, exdock, plus duty and clarified 64 percent 12 23/64c., same basis.

Valonia—Higher ocean freight rates stiffened replacements. Primary market was firm. Offers for shipments were quoted unchanged. Beards were quoted at $86 per ton, carlots, exdock; cups, $64 per ton, same basis, and extract, 9¾c. per pound, exdock, plus duty.

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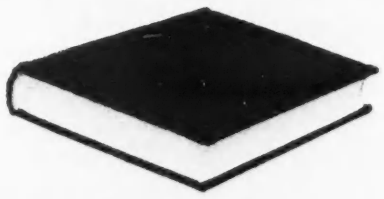

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Coatings Materials

Imported acetylene black was added to the growing list of pigments to be advanced January 1 on spot and contract. A producer last week announced a reduction in co-manufacturer discount prices for pigment green B in all types and forms, effective January 2. Iron blues will be advanced 2 cents per pound at the beginning of the year, as well as a number of organic lakes and toners. Benzidine and Hansa yellows will move up 10 cents per pound January 1.

Aluminum paste and powder were weaker, owing to a seasonal decline in the roofing industry. Other pigments as well were in the midst of a pre-holiday slump.

Most sources felt that business would return with a rush following the first of the year, but currently, it was pointed out, consumers were keeping an eye on the status of year-end inventories.

Synthetic resins showed remarkably little inclination toward change in price, considering the wave of higher prices in many raw materials.

So far, only a half-cent increase in some alkyds has been scheduled for January 1. Ester gums, phenolics, melamines, ureas, and polyvinyl acetate resins were slated to hold without change.

Plasticizers were seasonally quiet last week, and there was still some sharp-shooting in market prices for the more popular phthalates, owing to plentiful supplies and the large number of producers.

Natural resins and casein were quiet and listless, with consumer resistance to the latter mounting in view of the current asking price for Argentine material.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Dec. 23, 1955
100.29	100.29	100.30	98.26

For Current Prices see Page 9

January 1 Price Advances

Black, acetylene, imp., c.l., 2c. per lb.
l.c.l., 2c. to 4c per lb.
Blue, iron, 2c. per lb.
Peacock, fugitive, 100 percent color strength, 5c. per lb.
Victoria toner, PMA, 20c. per lb.
PTMA, 20c. per lb.
Chrome colors:
Yellow and orange, zinc yellow and molybdate chrome orange, 1½c. per lb.
Green, 2c. per lb.
Green, brilliant, PMA, 20c. per lb.
Malachite, PTMA, 20c. per lb.
Pigment B, 5c. per lb.
Maroon, BON acid, 10c. per lb.
Toluidine toner, 20c. per lb.
Orange, dinitroaniline toner, orthonitroaniline toner, 5c. per lb.
Red, chlorinated para toner, 5c. per lb.
Eosin toner, 10c. per lb.
Lake C toner, 7c. per lb.
Lithol rubine toner, 5c. per lb.
Para toner, CP, 5c. per lb.
Rhodamine, PMA, 10c. per lb.
PTMA, 20c. per lb.
Rubine toner, resinated, 5c. per lb.
Toluidine toners, all shades, 5c. per lb.
Violet, methyl toner, PMA, 20c. per lb.
PTMA, 20c. per lb.
Yellow, benzidine, 10c. per lb.
Hansa, 10c. per lb.

Prime Pigments

Aluminum Paste, Powder—This market was reported to be on the weak side because of a seasonal decline in activity of the roofing industry. Unchanged quotations are 68c. per pound for extra-fine paste, 48c. per pound for standard grade, $1.09 per pound for extra-fine powder, and 78½c. per pound for standard.

Antimony Oxide — Pre-holiday buying was quiet. Quotations were firmly maintained at 27c. per pound for carlots, and 28½c. per pound for less than carlots.

Blue, Iron—Three makers have scheduled 2c. advances in these colors to go into effect at the start of the year. The increase will bring quotations to 52c. per pound for minimum deliveries of 23,000 pounds, 53c. per pound for minimum deliveries of 2,000 pounds, and 54c. per pound for smaller lots.

Blue, Peacock Lake—Production of this pigment in September was 263,348 pounds, as compared with 286,262 pounds in August, according to a report of the Tariff Commission. Output in September, 1955 amounted to 193,204 pounds.

Lead Pigments—The brisk buying season has given way to a period of quiet sales. With the end of the year approaching, buying is limited to immediate requirements. As compared with previous years, the current one has been outstanding in price stability, with no changes at all reported during the last seven months. For the most part this has been a reflection of stability in pig lead, a material which held steady even through the Suez crisis.

Organic Colors—As may be seen from the January 1 price box above, a considerable number of these pigments are to be advanced. By and large, these advances are directly resultant of the cost increases encountered since January, when the last major changes were announced. The most recent noteworthy cost hike was a 17 percent advance in dyestuffs, also scheduled for the first of the year.

Titanium Dioxide — The improved supply position of this material may be observed in the fact that titanated lithopones are once more freely available. Some segments of the paint trade are expecting a January 1 price hike in titanium dioxide, but confirmation of such a move has not been received. Prices have been steady since the middle of the first quarter.

Zinc Pigments—Seasonably slow buying interest encountered ample supplies, with quotations steady and unchanged. Slab zinc production in November was 91,808 short tons, as against 93,493 short tons in October and 87,616 short tons in November, 1955. Shipments in November increased to 110,433 short tons from 106,848 short tons in October and 93,426 short tons in November of the previous year. As a result, stocks on November 30 declined to 70,185 short tons from 88,810 short tons at the end of October. According to the American Zinc Institute, the increase in shipments was accounted for by the Government, which ordered 27,168 tons in November, as compared with 21,392 tons the previous month.

Synthetic Resins

As of yet only one advance has been reported for the first of the year—a ½c. per pound increase in alkyds. In a first quarter price listing issued by one manufacturer, phenolics and ester gum solutions were unchanged at recently advanced levels.

Melamines, maleics, and ureaformaldehydes were unchanged at levels established earlier in the year. Last week's spot orders for synthetic resins were seasonably slow, but contract deliveries moved in good volume. In the months immediately ahead the automobile outlet is expected to show seasonally reduced buying interest. Sales to paint and construction outlets should continue to move steadily at a level somewhat below the October and November figures.

Alkyds—Output of alkyd resins for protective coatings dropped in September to 19,803,470 pounds from 22,198,384 pounds in August, as reported by the Tariff Commission. Production in September 1955 was considerably higher at 25,998,557 pounds. Production of modified alkyds declined in September to 5,136,569 pounds from 5,729,714 pounds the previous month, and 7,776,943 pounds in September 1955.

Melamines and Ureas—Production of these resins for protective coatings in September was 2,951,392 pounds, as compared with 2,816,943 pounds in August and 3,258,472 pounds in September 1955, as reported by the Tariff Commission.

Fillers and Inerts

Asbestos—Sources close to the industry report that the current year will end considerably below 1955 in total shipments of asbestos fiber, partly due to numerous strikes in high volume consuming industries, and to reduced output of asbestos cement building materials. The outlook for the future appears to be cautiously optimistic. Producers see a continued good market for asbestos in the capital expan-

Coatings Materials

sion programs of industry, but are uncertain about home building because of tight money conditions. All grades of crude are in ample supply.

Gypsum—Domestic mine production of crude gypsum during the third quarter of 1956, as reported by the Bureau of Mines, totaled 2,568,593 short tons, a figure 11 percent below the record production of the third quarter of 1955. Imports and domestic supply amounted to 1,206,248 short tons and 3,774,841 short tons respectively, both declining ten percent from the corresponding period of 1955. Production of calcined gypsum declined 12 percent. Output of processed materials was reported as follows:—calcined gypsum, 2,109,870 short tons; cement retarder, 726,339 short tons; base-coat plaster, 433,807 short tons; and total board, 1,717,730 square feet.

Lacquer Materials

Dibutyl Phthalate—The market was quiet last week, as consumers held off buying in view of year-end inventory positions. Current prices were without change.

Diethyl Phthalate—Buying interest was moderate, in accord with the holiday season. Despite current lack of demand, producers considered this material to be stable at prices advanced October 1.

Dioctyl Phthalate—While consuming demand remained fairly good, owing to requirements of plastics manufacturers prior to the holidays, prices continued subject to shading.

This position is nothing new to the trade, and pot-shotting has been more or less continuous for some time, due to periodic influx of so-called distress quantities of DOP into the market.

It was pointed out that during the past several years, some vinyl formulators as they expanded, have installed facilities for making their own plasticizers. When declines in sales of finished goods have occurred, the tendency has been to sell surplus lasticizers on the open market, thus depressing prices.

Sebacates—Increases in prices of the sebacates are generally anticipated for January 1, owing to higher raw material, labor, freight and processing costs.

Natural Resins

Gums—Copal and dammar gum markets were quiet last week, in keeping with preparations by consuming interests for the holiday period.

It was pointed out that since Christmas and New Year fall on Tuesdays, four-day vacations and shutdowns are expected generally. Inventory adjustments also accounted for lackluster inquiry.

Sellers of gums expected a sharp increase in demand after the first of the year. Current prices held without change. Supplies of most items were adequate for current needs.

Shellac—This market followed the pattern set by most commodity markets last week, with a general lack of buying interest displayed in view of the oncoming holidays.

Miscellaneous

Casein—Market for Argentine continued to weaken as buyers here showed a resolute lack of demand in the face of plentiful offerings from Argentina.

Chief factor in the slow market was the unwillingness of buyers here to pay asking prices. Another contributory factor was the holiday season, which, it is anticipated, should cut sharply into buying from now until the end of the year.

Shipment was priced fractionally lower, at 22½c. per pound, with spot casein quoted at 23½c. to 24c. per pound, as to quantity.

Naval Stores

November production of gum naval stores amounted to 11,030 barrels of turpentine and 42,540 drums of rosin, according to the crop reporting board of the Department of Agriculture. Production during the first eight months of the season was five percent less than for the same period last year. April-November production of sulfate turpentine was four percent more than to date last season, while steam distilled turpentine and rosin were down three and two percent, respectively. No crude sulfate turpentine was burned during November. Total stocks of gum turpentine decreased 2,560 barrels during the month. CCC gum rosin holdings declined but failed to offset the gain in "all other" gum rosin stocks; steam distilled rosin held at last month's low level. ..

Rosin, Gum

(USDA, per 100 lbs.)

	Fri. Dec. 14	Mon. Dec. 17	Tues. Dec. 18	Wed. Dec. 19	Thur. Dec. 20
Drums—					
I	$8.23	...	...	$8.25	...
K	8.25	...	...	...	$8.21
M	8.25	...	...	...	...
N	8.45	...	...	...	8.21
WG	...	...	...	8.55	8.54§
WW	...	$9.18§	$9.80	8.93§	8.90
Bags—					
K	...	...	...	8.15	...
M	...	...	...	8.15	8.08
N	...	...	...	8.50	...

Tankcars (for week ended December 14)—M or better, $7.75; K or better, $7.965, 1,707*

Sales, USDA: 712* 320* 248* 630* 97*

New York
(per 100 lbs., c.l., Friday)
WW, $10.20; WG, $9.65; N, $9.55; B through M, $9.30

Turpentine, Gum

(USDA, per gal., 7.2 lbs.)

Price	.585	.585	...	.586§	...
Sales	14,000¶	14,000¶	...	48,700¶	...

New York, Friday, per gal. 7 lbs., tankcars, 67c.; dms., 82c.

* Drums equivalent. ¶ Gallons. § Average price.

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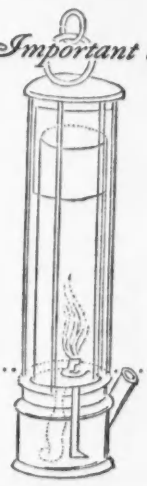

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Oils, Fats and Waxes

Buying interest in oils and fats last week was quiet, reflecting the quiet pre-holiday season. Domestic demand was slow and export business disappointing. Spain purchased 2,000 metric tons of refined soybean oil for prompt shipment and rejected bids on 23,000 tons, but was expected to re-enter the market mid-January. Soybean oil closed steady. Corn and cottonseed were lower. Peanut oil was irregular, early advances were not maintained. Crude peanut was sold at former levels. While oils were lower, acidulated corn and soybean foots were stronger and fractionally higher. Crude coconut oil moved in fair volume at unchanged prices. Copra was inactive and easy. Olive oil was firm and in tight supply on spot. Offers from primary sources were scarce chiefly from Tunisia.

Absence of export business weakened tallow and greases. Offers were liberal and trading was reported at a fractional decline for all inedible grades, while edible tallow was unchanged. Oleo oil also was easier and declined fractionally.

n drying oils, castor oil continued strong for both domestic and imported grades. Foreign markets were strong and offers for shipment were limited and firmly held at the recent advance. Castor beans also were strong and scarce. Oiticica oil was firmer reflecting the strength of replacements from Brazil and quotations were raised in some quarters. Tung oil was quiet, but steady, especially for nearby delivery, while futures were shadable. Linseed oil was quiet and unchanged with intimations that firm bids could shade quotations for tankcar business. While export interest for crude menhaden oil was quite active, the scracity of steamer space continued to affect business.

Feature of vegetable wax market was the higher cost of carnauba grades for shipment from Brazil. Trading there was active and shipments were boosted about 3 cents per pound. This had the salutary effect locally and while spot prices were unchanged, a stronger tone prevailed in the spot market. Crude beeswax continued firm on spot and shipment due to scarcity of offers from primary sources. Candelilla also was scarce and closely held.

Price Trends

Advanced
Castor beans, $5 per ton.
Oil, foots, corn, 95%, ¼c. per lb.
soybean, 95%, ⅛c. per lb.

Reduced
Copra, $2 per ton.
Greases, ⅛c. per lb.
Oil, coconut, crude, ¼c. per lb.
Corn, crude, ⅛c. per lb.
refd., ⅛c. per lb.
Cottonseed, crude, ¼c. per lb.
refd., ¼c. per lb.
Oleo, ½c. per lb.
Soybean crude, ¼c. per lb.
refd., ¼c. per lb.
Tallow, ined., ⅛c. per lb.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Dec. 23, 1955
120.72	119.16	120.78	103.77

For Current Prices see Page 9

January 1 Price Advances

Oil, tall, crude, ½c. per lb.

Vegetable Oils

Castor—Firm conditions continued to feature this market. Domestic grades were maintained at former levels, reflecting the strength of imported oil and beans. No. 1 Brazilian was strong at 22½c. per pound, tankcars, New York basis, prompt delivery. Acidulated 95 percent foots were higher at 6¼c. per pound, tankcars, delivered East.

Coconut—Trading in crude continued at 11½c. per pound, tankcars, f.o.b. Pacific coast, prompt shipment. The New York market was nominal at 12⅞c., tankcars, prompt.

Corn—Crude was easy with quotations off fractionally. Crude was sold at 14¼c. per pound, tankcars, f.o.b. mills. Refined oil was lower at 17.84c. per pound, tankcars, New York, prompt delivery.

Cottonseed—Futures were weaker and closed fractionally lower last week. Liquidation was fairly liberal, catching top loss orders, which kept the market unsettled. Lower allied markets were contributing factors. Upturn ran into selling pressure. December contracts increased to 288 contracts and were absorbed. Consuming demand was slow reflecting the usual pre-holiday quiteness. Refined salad was lower, off ⅛c. and available at 17½c. per pound, tankcars, New York, prompt delivery. Export business in cotton oil was disappointing, though Spain bought 2,000 tons of refined soybean oil for prompt shipment and rejected bids on 23,000 tons.

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, December 21, follow:—

	Sales	High	Low	Close
		Cents per pound		
Jan.	29	15.81	15.68	15.85@16.00
Mar.	540	16.33	15.72	16.06S
May	649	16.37	15.75	16.08S
July	375	16.23	15.73	15.95S
Sept.	115	16.10	15.60	15.82@15.85
Oct	20	15.79	15.60	15.58@15.75
Dec.	21	15.64	15.13	15.35@15.40

Total sales and switches, 1,749 contracts

Crude cottonseed oil was weak and declined ⅛c. per pound. Export business was reported fairly active on a scale downward. In the southeast and Valley oil was offered at 13¾c. per pound, tankcars, f.o.b. mills, with bids ⅛c. less. Lubbock was nominal at 13⅞c., sales and Waco, 14⅛c. bid.

Linseed—Buying interest lagged which is usual at this season. Price schedule was unchanged, but shadable on firm bids. Raw oil was offered at 13.7c. per pound, tankcars, Minneapolis, December-forward delivery. Withdrawals against contracts slackened last week, but instruction were heavy for delivery after the turn of the year.

Minneapolis.—This market was very dull, interest confined to a few nearby tanks. Quotations held at 13.7c. a pound, raw, in tankcars, f.o.b., Minneapolis; 14c. out of warehouse. Concessions of at least 2 10c. were available on tankcar lots. Spain purchased 1,500 tons of linseed oil and Italy has received an allocation. Shipping directions were not aggressive, although crushers anticipated pick-up ahead of effective date of freight increase.

Shipments of linseed oil, in pounds, were as follows:

	1956-57	1955-56
Past week	7,200,0000	6,540,000
Since Sept. 1	116,160,000	109,680,000

Flaxseed—Trading quiet, but market was stronger and advanced 3c. per bushel.

Minneapolis.—Crushers raised bids on cash flaxseed to $3.43 a bushel, spot and to-arrive, basis Minneapolis. Offerings at that level were virtually nil, producers holding to subtantially higher ideas. Crushers apparently had sufficient supplies for nearby needs, some shutdowns planned, and tendency was to wait until after the first of the year and see if offerings increased. Flaxseed placed under loans through November 15 totaled 11.8 million bushels compared with 6.1 million a year ago. Only 9 cars were offered in the spot market, plus 5,000 bushels in trucklots. To-arrive bookings amounted to 17 cars and 800 bushels. Arrivals of flaxseed for all accounts totaled 263 cars, against 171 cars a year ago. Shipments amounted to 50 cars, compared with 37 cars last year.

Receipts and shipments of flaxseed, in bushels, were as follows:

	Receipts		Shipments
	1956-57	1955-56	1956-57
Past week	473,400	299,250	90,000
Since Sept. 1	12,786,400	12,706,750	1,607,400

Oiticica—Buying interest was slow. Market was steady and ranged from 15½c. to 15¾c. per pound, tankcars, New York, prompt delivery as to seller. Drums ranged from 17c. to 17½c. per pound, spot according to quantity.

Olive—Light stocks on spot were firmly held. Spanish oil was maintained at $3.50 to $3.60 per gallon, drums, spot, duty paid. Trading was quiet. Tunisia resumed offers for shipment on the basis of $75 per 100 kilos, c,&f. New York.

Palm—Stocks on spot were smaller and well held at the recent advance. Drums ranged from 15¾c. to 16¾c. per pound, spot as to quantity. Offers of tankcars on spot have been withdrawn and March delivery was recently advanced to 13½c. per pound.

Peanut—Crude offers for nearby were light and well held. Tankcars were sold

Oils Fats and Waxes

at 19c. per pound, f.o.b. mills, prompt. Refined oil was quoted at 22½c. per pound, tankcars, New York, prompt delivery.

Rapeseed—Replacements were firmer and maintained at 18¾c. per pound, tankcars, New York, prompt delivery.

Soybean—Crude was irregular, last week but closed steady. Business was slow for domestic and disappointing for export. Spain was in the market for 25,000 tons of oil, but purchased only 2,000 tons of refined oil at prices ranging from $388 to $391 per metric ton, Houston, for early January shipment. Bids for the balance were rejected. Crude was sold at 14c. per pound, tankcars, Decatur, December at the close; January was sold at 13⅝c. February was nominal at 13½c. Refined salad was lower at 16¾c. per pound, tankcars, New York, prompt shipment.

Acidulated 95 percent foots were stronger and advanced to 6¾c. per pound, tankcars, delivered East.

Soybean Oil Futures

Sales and prices of crude soybean oil futures (new contract) in tankcars (60,000 pounds) on the New York Produce Exchange for the week ended Friday December 21, follow:—

	Sales	High	Low	Close
		—Cents per pound—		
Dec.	6	14.05	14.05	Exp.
Mar.	12	12.94	12.88	13.11@13.18
May	13	12.96	12.75	12.87S
July	14	12.72	12.40	12.57S

Total sales, 45 contracts.

Tung—Trading was quiet. Tankcars well held at 23½c. per pound, New York, nearby delivery and futures available at ⅛c. less. Drums were unchanged at 25c. per pound, carlots and 25½c. for smaller quantities.

Miscellaneous

Castor Beans—Primary markets continued strong. Offers for shipments were reported limited and closely held. Quotations were nominal at $180 to $185 per ton, f.o.b. Brazilian port.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:

	Pounds	
Last week	635,400	3,154,000
Previous week	322,250	794,000
Corresponding week, 1955	555,750	964,800
Total this year	44,316,750	76,871,000
Corresponding period, 1955	76,876,910	48,487,800

Cocoa Butter—Business was quiet and market was nominal at 69c. to 72c. per pound, spot, as to quantity.

Copra—Market was quiet and easy. Shipments were lower at $150 per ton, c.i.f. Pacific coast.

Fats and Greases

Greases—An easier tone prevailed and light trading took place at lower levels. All grades declined fractionally. Choice white sold at 8⅛c. per pound, tankcars, delivered, with bids at ⅛c. lower. Yellow was moved at 6¾c., but closed nominal at 6⅝c. Export business continued slow. Yellow grease in drums was quoted at 8c. per pound, f.a.s.

Lard—Market was dull and featureless. Cash lard was nominal at 14c. per pound, drums, Chicago.

Oleo Oil—Extra was easier due to increased offers and slow demand. Drums declined to 19c. to 19½c. per pound, depending upon quantity. Oleo stearine was reported in limited supply and quoted nominally from 14½c. to 15½c. per pound, drums, as to quantity and seller.

Tallow—Slow business further weakened all grades and quotations dropped fractionally. Bleachable fancy was reported sold at 7¾c. and 7⅝c. per pound, tankcars, delivered. Prime was lower at 7⅜c.; special, 7c. and No. 1, 6¾c., same basis. Export business continued quiet. Fancy was nominal at 9¼c., drums, f.a.s. Edible was maintained at 14c. per pound, tankcars, delivered.

Tallow Futures

Sales and prices of bleachable tallow futures in tankcars (60,000 pounds) on the New York Produce Exchange for the week ended Friday, December 21, follow:—

	Sales	High	Low	Close
		—Cents per pound—		
Dec.	2	8.15	8.15	7.75@7.90

Total sales, 2 contracts.

Fish Oils

Cod — Reduced stocks at primary sources stiffened this market. Offers for shipment were scarcer and maintained at 10⅞c. per pound, drums, exdock, New York, exdock. Buying interest has slackened. Stocks on spot were slightly higher at 11⅝c. to 11⅞c. per pound, drums, as to quantity.

Menhaden Crude—Export interest was active but actual trading was reported limited due to scarcity of shipping space. Tankcars ranged from 9¾c. to 10c. f.o.b. works, prompt delivery. Fishing was reported good off the North Carolina coast. Refined oil was quiet, but steady at the recent advance of ½c. per pound. Light pressed was held at 11½c. per pound, tankcars, New York basis.

Cake and Meal

Cottonseed Meal—Trading in meal was quiet. Most mills are fairly well sold up and not pressing for business. Forty-one percent was unchanged at $58 per ton sacked Memphis; $62 Alabama, Georgia and South Carolina for January shipment.

Linseed Meal—Market was quiet, but steady.

Minneapolis.—Market was steady, influenced by anticipated tight supply situation in January when several crushers will close down flaxseed crushing operations. Quotations ranged from $51 to $52 a ton on 36 percent protein extracted meal for prompt forward shipment. Exporters reportedly offered supplies on the domestic market. Shipping directions continued active.

Shipments of linseed meal, in pounds, were as follows:

	1956-57	1955-56
Past week	14,700,000	16,380,000
Since Sept. 1	242,520	278,461,000

Peanut Meal—Light sales took place at $58 per ton, sacked, Texas, f.o.b. shipping point. The Georgia market was about $58 per ton nominal although no supplies are available.

Soybean Meal—Trading has slowed down but interest was fairly active. Production was heavy but consumption of meal at present price looks good. Prices remained steady for 44 percent meal at $46 per ton, bulk, Decatur January-March; $47.50 April-September and $50 per ton, f.o.b. Mississippi Valley, January-February shipment.

Waxes

Beeswax—Crude beeswax market continued a nominal affair due to scarcity of available stocks on spot and for replacements from abroad. Primary markets remained strong and offers for shipment were light and maintained at prevailing high levels. Refined firm and unchanged for all grades.

Candelilla—Stocks here continued in limited supply. Demand was light, but market remained strong for both crude and refined at current quotations.

Carnauba—Replacements from Brazil were higher as a result of active trading and shipments were boosted 3c. per pound. This had a stimulating effect locally and prices were firmer and not shadable. Trading was light and spotty, which is usual at this season. No. 3 Ceara crude was maintained at 66c. to 68c. per pound, spot, as to quantity and Parnahyba, 2c. more. Yellows continued scarce and firm. No. 1 Ceara yellow ranged from $1.43 to $1.45 per pound, spot and Parnahyba, $1.46 to $1.48 per pound, according to quantity.

Japan—Trading was dull and featureless. Stocks on spot were limited and quoted from 47c. to 49c. per pound, spot depending upon quantity and seller.

Ouricury—This market continued dull and featureless. Refined was nominal at 89c. to 90c. per pound, spot and technical around 85c., with an occasional small lot moving at these levels.

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PHS to Tighten Rules

—*Continued from page 4*

person knowingly to transport or cause to be transported in interstate traffic such agents unless:—

● In the case of fluid materials or solid materials other than frozen, the container of the etiologic agent is watertight and airtight and is enclosed in a second durable watertight and airtight container with the intervening space provided with sufficient absorbent material so placed as to absorb the entire contents in case of breakage, and each such double container is individually enclosed in a carton or wooden shipping container.

● In the case of frozen materials, the container of the eitologic agent is watertight and airtight and is enclosed in a second durable watertight and airtight container or surrounded by sufficient absorbent material to absorb the contents in case of breakage; the package contains enough dry ice and sufficient insulation material to insure that the material will remain frozen for at least twenty-four hours longer than the expected time of delivery of the shipment to the consignee; and the container with its immediate surrounding material, dry ice and insulation is enclosed in a carton or wooden shipping container.

● (a) The contents of a single container does not exceed one U. S. gallon.

(b) All containers and closures are so designed and constructed of such materials that they are capable of withstanding without rupture or leakage of contents all shocks, pressure changes, or other conditions ordinarily incident to transportation handling.

● The shipping documents and the manifest accompanying the shipment include statements that the shipment contains infectious material and identifies the eitologic agent involved. The shipment itself shall be appropriately labeled.

Soap Industry Group

—*Continued from page 7*

research behind them, will be brought up to the present as a part of the display.

Speakers at this year's convention, who will forecast next year's economic climate as a basis for business decisions, include William McChesney Martin, jr., chairman of the Federal Reserve Board, and Roy L. Reierson, vice-president of the Bankers Trust Company.

The Surgeon General of the United States, Dr. L. E. Burney, will also address the group. Wheeler McMillen, executive director of the President's Commission on Increased Industrial Use of Agricultural Products, will review government research possibilities.

A report of the year's activities of the Association, in relation to the progress of the industry as a whole, will be given by E. B. Osborn, president of Economics Laboratory, Inc., New York.

As a part of the meeting, separate sessions will be held on Wednesday January 23rd, of the Association 25 industrial soap divisions and of the fatty acid producers' council. The Glycerine Producers' Association will hold its divisional meeting on Thursday, January 24th.

Plant Food Group Against

—*Continued from page 4*

authorized to act as a clearing house and make available to all parties including state officials and state legislatures any information on the subject."

The institute poll on the issue revealed that of those reporting, 67 percent were opposed to changing the present method of reporting and 17 percent favored the proposed change. The poll showed that 16 percent of the members were neutral.

The poll was authorized by the executive committee following action by the Association of American Fertilizer Control Officials, which proposed a change in the reporting of phosphate and potash in connection with a model state fertilizer law.

Acrylate Ester Plant

—*Continued from page 3*

expansion program, which also includes the recent completion of a new plasticizer and functional fluid plant in Point Pleasant, W. Va., and construction of a new polyol production unit in Bishop, Tex.

Alcohols and other materials currently in large volume production by Celanese will provide raw material for the Pampa acrylate plant. The plant output will include a wide range of acrylic acid esters of maximum commercial importance, including methyl, ethyl and butyl acrylates.

"The new Pampa plant," Mr. KixMiller said, "further broadens the Celanese position as a supplier of basic monomers for use by industries to which we are currently supplying vinyl acetate, vinyl propionate and methyl isopropenyl ketone."

Supreme Court

—*Continued from page 3*

the continued application of a regular pricing system, and it is this question which the Supreme court has agreed to rule on.

Although the matter is one of whether Standard was acting in good faith, the government said that the issue is important because the same practice has been followed by other companies in the Detroit area, and in other lines of industry.

Hercules, ICI Form

—*Continued from page 3*

forms. Methyl methacrylate is made by only two other companies in the United States, and at present its main application is as a plastic polymer.

Imperial Chemical Industries was the pioneer of the process for the synthesis of methyl methacrylate monomer. ICI will bring to the new company its production, research, and technical sales service experience developed over twenty years as a major manufacturer of methyl methacrylate in all its forms.

Hercules will bring to the new company a technical organization experienced in United States production methods, and an established position in US markets, plus the advantages of a site where the basic raw materials are available.

Archer-Daniels Has Process for Irradiation

—*Continued from page 7*

changes, production of free radicals and their recombination in new patterns, under controlled conditions.

Use in Polyethylene Noted

As an example, polyethylene of the regular polymer type, melts at temperatures up to 230° Fahrenheit, and the new low pressure type polyethylene at around 260° F. Irradiation of polyethylene with high energy results in a plastic that will not melt at temperatures above 330°F., which opens up new high temperature applications of polyethylene.

High energy electron radiation is being studied on a research basis by the petroleum industry, the plastics industry, and many others. Polymeric materials may be either upgraded or degraded, polymers built up or broken down, and entirely new physical and chemical properties induced.

Ultimate economically feasible processes of chemical syntheses, by applied high energy radiation at the reactive points of molecular structure, depends upon the cost of such energy at the point of application. The newest and most practical economic source of this energy appears to be from such instruments as the resonance type linear electron accelerator.

There are various sources of gamma, x-ray and electron radiation, and the comparative advantages, disadvantages, and economic aspects are outlined below:

What Reactor Radiation Involves

First, reactor produced radiation involves the direct use of gamma rays produced during the operation of an atomic reactor. The total amount of energy released by the fission of one uranium atom is 195 million electron volts (MEV). This energy breaks down into the following approximate fission energy balance:

Kinetic energy of fission fragments	162 MEV
Radioactive decay energy	21 MEV
Energy of neutrons	6 MEV
Instantaneous gamma-ray energy	6 MEV
	195 MEV

Obviously, the apparent 3 percent of total reactor output power in the form of instant gamma-ray energy, is not safely available as such, because the rays are released through the reactor core, and only a fraction of them can be utilized. Moreover, they are mixed with neutrons and can induce radioactivity in the product being treated, which is undesirable. Such a high cost low useful gamma output is not practical.

A second group of high energy sources are the radioactive materials produced by atomic reactors, such as:

1. **Waste Fission Products**—The delayed energy released from the radioactive wastes, the multitude of fission product isotopes, amounts to as much as 6 percent of the original number of uranium atoms. The Atomic Energy Commission is constantly searching to find a practical use for them. The most suitable radioisotope components of the fission product wastes are cerium-praseodymium 144, with a half life of 300 days, and cesium-barium 137 with a half life of thirty-three years. However, they are mixed with other fission wastes which reduce the effectiveness of the source by self absorption of the radiation.

To indicate that fission products are not an economic source of radiation, even if separated, it has been calculated that it would require a very large installation of a 1,000 megawatt reactor to yield a single one million curie cesium source of radiation each year, burning up 800 pounds of uranium, to sterilize one ton of food per hour. Economically this would be out of the question.

2. **Radioactive Fission Gases**—Some 1 percent of fission energy appears in the form of radioactive xenon and krypton. Using a solution type reactor from which these gases could be removed and pumped through an irradiator, it would take a 3 megawatt solution type reactor costing approximately $1.8 million to furnish 3 kilowatts of useful gamma radiation.

3. **Cobalt 60**—This is produced by exposing cobalt to activation in a reactor. This is the most practical and realistic utilization of reactor power for obtaining a radiation source. However it is high cost radiation when figured overall. Because radiation is emitted over the source's entire surface, elaborate measures must be taken to prevent high radiation losses. A specially designed 1,000 megawatt enriched fuel reactor to produce fifty five-megacurie cobalt sources a year would require an investment of about $25 million.

A third source of high energy radiation is accelerators to produce radiation. There are several of these accelerating machines which have been developed.

Direct high voltage machines are of five types:

a. Conventional X-ray Machines—These operate at potentials up to 260,000 volts. Electron-X-ray conversion efficiency at this energy is less than 1 percent and the electrons have so little range that they cannot be used effectively.

b. Resonant Transformer—This instrument is made by General Electric Company. Several one and two MEV units have been produced and a four MEV, 20 kilowatt unit is under development.

c. Van de Graaff Machine—The highest power unit so far produced is a three MEV, 10 kilowatt machine costing approximately $400,000. The practical upper limit in output energy is about three MEV. It uses a moving belt to transfer charge to a high potential point in a gas pressurized tank.

d. The Capacitron—This machine uses the principle of charging capacitors in parallel and connecting them in series across the accelerating tube. Practical voltage limit is three MEV.

e. The Genetron—This is not a commercially available machine, but is a machine of very high power capacity, even though the practical limit of output energy appears to be around three MEV.

Acceleration By Magnetic Induction

Acceleration by magnetic induction is the principle of the betatron, which accelerates electrons to high energy.

Resonance type accelerators are of two kinds:

a. Microtron or Electron Cyclotron—Makes charged particles (usually heavy positively charged particles) move at high velocities in a circle at ever increasing radii. Electrons move at near the speed of light at low energy, making this instrument difficult to develop for industrial electron radiation processes.

b. Linear Electron Accelerators—These machines are a successful combination of physics and high power microwave engineering. The basic requirements built into them are a very intense source of radar frequency power, a specially constructed loaded wave guide and a source of energetic electrons. The potential of these machines is virtually unlimited because energy is unlimited and power is unlimited.

Machines designed or built as of today by Applied Radiation Corporation range up to 25 MEV of electron beam energy and an electron beam power of 60 kilo-

—*Continued on page 62*

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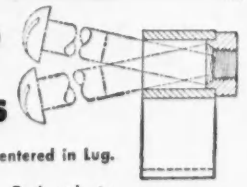

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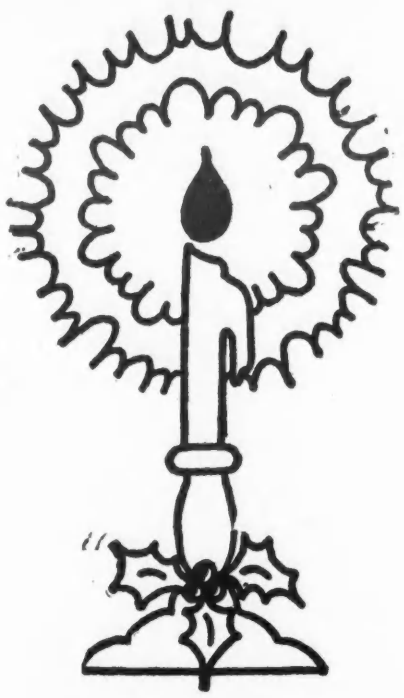

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and

Happy New Year

Edward Gelb,
President

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3—Colton 17 TF tube filler, closers & crimpers.

1—250 gallon vacuum pan.

3—Purecel 73 sq. ft. filters.

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1—Abbe Lenart 55 gallon mixer.

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Wanted: Reliable, aggressive representative to present our high quality competitively priced antibiotics to distributors in the veterinary and agricultural lay field. Tremendous opportunity prevails. Prefer one who can give national coverage; however, regional representatives would be considered. We have distributors in scattered parts of the country. Opportunity for the right man to actually share in the business without investment. OPD 217.

Pesticide Carryover

—Continued from page 7

stocks of lead arsenate decreased 14 percent from a year earlier.

The Department's report on inventory was based on a survey made in cooperation with the National Agricultural Chemicals Association, on returns received through December 10 from basic producers and pesticide formulators. A report to be issued within the next two months will show estimates in terms of pounds.

The following table shows the percentage increase in inventories on September 30 over the same date in 1955. (Basic producers of pesticidal chemicals may or may not formulate pesticides, and mixers may have both undiluted and formulated material on hand. Figures in the following table are based on type of stock diluted or undiluted rather than on type of business):

Pesticide	Overall stock (tech., formulated)	Technical (undiluted)	Formulated (mixed)
Aldrin to toxaphene group*	63	74	32
Benzene hexachloride:			
All grades (gamma basis)	74	102	24
12%-24% gamma	..	102	..
36%-46% gamma	..	108	..
Lindane (99%)	..	46	..
Calcium arsenate	178	..	..
2,4-D	32	39	26
DDT	66	101	26
Lead arsenate	—3	..	..
Organic phosphorus insecticide	22	24	20
Rotenone	22	..	..
2,4,5-T	26	..	..

* Includes aldrin, chlordane, dieldrin, endrin, heptachlor and toxaphene.

Chemical & Process Moves Office

Chemical & Process Machinery Corporation, Brooklyn, N. Y., has changed the location of its west coast office to 2800 Sunset boulevard, Los Angeles. The company has also added Ned Friedberg, formerly with Dulien Steel, to its staff.

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Archer-Daniels Has Process for Irradiation

—Continued from page 59

watts. Machines are under consideration of 1,000 kilowatts output of electron beam power. Machines operating at a level of six MEV and turning out four kilowatts cost about $150,000 to $200,000.

Applied Radiation Corporation compared the cost of the best energy source of radioactivity, Cobalt 60, with the cost of linear accelerator energy, from an operating standpoint.

These data were as follows, based on 2 x 10^6 Rep, two shifts-five days/week (4,000 hours):

Table I

CURRENTLY—1956

Basis: 2 x 10^6 *Rep*

	Cobalt 60 4,000 Hr.	*Linear Accelerator 4,000 Hr.*
Capital Cost:		
500,000 curies of Co^{60} @ 2.00 curie	$1,000,000	.....
Co^{60} 2½ year replacement cost	140,000	.....
Handling and transportation cost	15,000	.....
Facility cost, shielding, canal, etc. (irradiation facility only)	100,000	100,000
Conveyor equipment	10,000	10,000
2 linear electron accelerators—4 K, 12 MEV @ $200,000 (installed)	.....	400,000
	$1,265,000	$ 510,000
Operating Cost Year:		
Depreciation (5 year)	253,000	102,000
Maintenance	4,000	10,000
Operators	16,000	.....
2 operators @ $325 mo.	$ 7,000	
2 technicians @ $450 mo.	10,000	
1 engineer-physicist @ $700 mo.	8,400	
Electric power @ 1½c. kw.-hr.	.....	27,000
Miscellaneous	4,000	8,000
		4,000
	$ 277,000	$ 151,000
Cost hour	$ 69.25	$ 37.80
Cost kw.-hr.	9.69	4.72
Cost ¢ (1)	.028	.015

(1) Electron beam utilization efficiency assumed 65 percent, gamma beam efficiency, 72 percent.

Table II

(PROJECTED—1960)

Basis: 2 x 10^6 *Rep*

	Cobalt 60 4,000 Hr.	*Linear Accelerator 4,000 Hr.*
2 shifts—5 days week (4,000 hr.)		
Capital Cost:		
3 linear electron accelarator 60 kw., 12-20 MEV @ $450,000 (installed)	.....	$1,350,000
12,600,000(1) curies Co^{60} @ $.25 curie	$3,150,000	.....
Cobalt 60 2½ year replacement cost ($140,000) (6,300,000 250,000) ($.25 $2.00)	441,000	.....
Handling and transportation costs	378,000	.....
	$3,969,000	.....
Shielding and plant facilities (for radiation process only)	150,000	200,000
Conveying system	24,000	24,000
	$4,143,000	$1,574,000
Operating Costs:		
Depreciation and Obsolescence (5 year write-off)	829,000	315,000
Maintenance, repair and replacement parts (includes normal hourly guarantee on klystron—accelerator tube)	15,000	54,000
Salaries:		
Operators @ $325 mo. (6 for both Cobalt and Linac Facilities)	23,000	23,000
Technician @ $450 mo (2 for Cobalt and 4 for Linac)	11,000	22,000
Engineer-physicist @ $700 mo (1 for both Cobalt & Linac Facilities)	8,000	8,000
Total salaries	$ 42,000	$ 53,000
Electric power @ 1½c. kw.-hr.	.....	54,000
Miscellaneous	50,000	50,000
	$ 936,000	$ 526,000
Operating cost hour	$ 234.10	$ 131.50
Operating cost kw. hour	1.30	.73

(1) 1 watt—70 curies Co^{60}.
180,000 watts—12,600,000 curies.

Business Outlook

—Continued from page 3

cific commodities where capacity is in excess of demand, quotations are being received at less than "established" prices.

There is, apparently a growing resistance to price increases and a general feeling that, in order to avoid a squeeze on 1957 profits, business is going to have to offset higher labor costs with more efficient operations.

A marked reversal of the declining inventory trend, that has been prevailing for the past several months, appears in the December reports. Where only 17 percent reported inventories up in November, 30 percent indicate higher inventories this month. With production and new orders off, it is logical to expect that deliveries on previous commitments would temporarily build up inventories.

Employment

The relatively small number, 17 percent, reporting employment greater this month is about equal to those reporting it as less. In general, most purchasing executives believe that employment has reached a stable level and no significant change either up or down is expected in the near future.

Buying Policy

Last month's reported shift toward the thirty-day range in buying production materials received further confirmation in December. Over one-third of the members reporting are now in this range—highest reported since May, 1955, when the buying policy categories were separated into the present three components.

On MRO items, 92 percent are buying such requirements within less than sixty days' lead time.

Forward buying on capital expenditures continues to lengthen, as 66 percent say they now require 120 or more days.

Specific Commodity Changes

There is much less reported emphasis on price changes this month, either way, than for some time, indicating a much better balance in supply and demand relationships.

On the up side are: Nickel, steel scrap, methanol, dyestuffs, paper, sugar, vegetable oils, coal, fuel oil, rubber, asphalt, sand and abrasives.

On the down side are: Some copper items, tin and lumber.

In short supply are: Nickel, steel (plate, structural, shapes, pipe and tube) and cellophane.

Visking Sale

—Continued from page 3

casings used by packers for processed meat and sausage products, as well as polyethylene film and tubing important in the packaging industry. The company pioneered the use of cellulose meat casings.

Visking employs over 3,000 people in the United States and Canada. It has a food casing plant in Chicago and a new plant is nearing completion in Loudon, Tenn. Polyethylene film is produced at plants in Terre Haute, Ind.; Fremont, Cal., and Flemington, N. J. Visking, Ltd., the Canadian subsidiary, has plants in Lindsay and Ajax, Ontario. It produces meat casing at both plants and plastic film at Lindsay.

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FAO Sponsors Study

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food additives have a legitimate use in food processing and distribution systems inasmuch as they promote the better utilization of available foods. The use of such additives was held to be justified when they help to maintain the nutritional quality of a food, enhance its keeping qualities, make foods more attractive to the consumer without deceiving him and provide essential aid in food processing.

On the other hand, the group said, the use of additives should not be permitted when they disguise faulty processing and handling technics, when they deceive the consumer, when they reduce substantially the nutritive value of the food, and when the desired effect can be obtained by good manufacturing practices which are economically feasible.

Particular consideration was given to ensuring safety, and the meeting agreed that each type of additive must be rigorously pre-tested and the decision to use an additive must be based on the judgment of properly qualified scientists.

The experts agreed that, in principle, consumers should always be informed—by labeling or otherwise—of the presence of additives in the food that they buy and that strict legal control of the use of food additives is essential.

This means that trained food inspectors, food control laboratories and reliable analytical methods must be available to enforce national regulations, it was explained.

Hooker Absorbs

—Continued from page 4

William H. Streicher, plant engineer, and Floyd E. MacDonald, personnel director, Harry R. Oswald has been named works manager of the Columbus, Miss., plant.

Sales department appointments for this division are as follows:—Harold N. Fyffe, general sales manager; Robert B. Boyd, sales manager, and Fred H. Berggren, assistant sales manager. This group will report to Robert E. Wilkin, Hooker vice-president and director of sales.

Mr. Klaussen said that plans are being studied for effective integration of Oldbury Division office personnel into existing Hooker departments. This is not expected to affect the production department of the division, represented by United Mine Workers of America, District 50.

The Oldbury Division, which began operations in 1897, employs approximately 500 persons at Niagara Falls, N. Y., Columbus, Miss., and at the sales office in New York. It is a producer of phosphorus, phosphorus compounds, chlorates, perchlorates, oxalic acid, and perchloric acid.

Barrett Appoints

—Continued from page 5

Dr. Bigelow has a service record of twenty-five years and is the author of more than fifty technical articles, books and patents, primarily on plastics.

Mr. Stupp started with Barrett as a research chemist in the Edgewater plant. Since that time he held positions of increasing responsibility in sales, manufacturing, and research.

Prior to his appointment as vice-president in 1954, Mr. Stupp had been technical director of Barrett for four years. As vice-president, Mr. Stupp continued to direct the technical activities of the division, including Barrett's extensive research and development department with laboratories in Edgewater; Glenolden, Pa.; and Toledo, Ohio.

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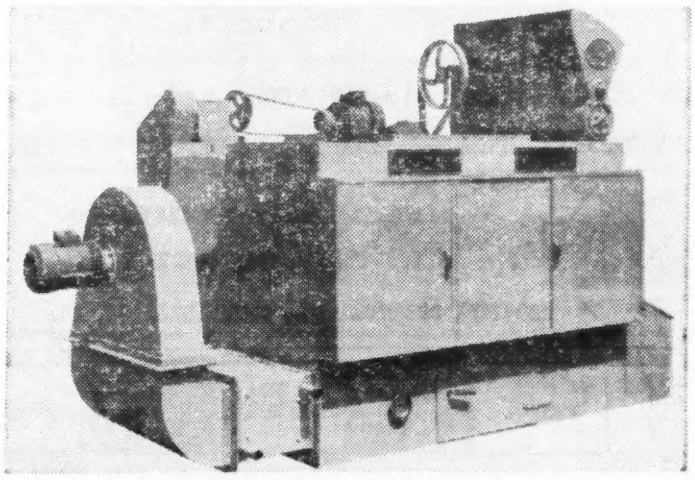

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